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THE HYDROGEN ION CONCENTRATION OF THE TOPICAL PREPARATIONS COMMONLY EMPLOYED IN DERMATOLOGY

OSCAR L. LEVIN, M.D.

Attending Dermatologist, Beth Israel, Sea View and Queens General Hospitals; Associate Dermatologist, Mount Sinai and Montefiore Hospitals; Consulting Dermatologist, Rockaway Beach and St. Joseph's Hospitals

AND

SEYMOUR H. SILVERS, M.D.

Adjunct Dermatologist, Beth Israel Hospital; Assistant Attending Dermatologist and Syphilologist, Bellevue and New York University Medical Clinic

NEW YORK

Knowledge of the chemical reaction that occurs in topical preparations employed for cutaneous diseases is notably deficient. In general, the effect of external treatment depends mainly on the physical properties of the pharmaceutical products.

In a paper published recently,[1] a report was made of the results obtained by determining the hydrogen ion concentration of the skin in cases of eczema. It was found that in these cases, and especially in the acute ones, the p_H was increased—that is, there was a more marked alkaline reaction. We therefore believed that in a rational treatment of the dermatoses it would be valuable to know the reaction of the topical preparations that are used most frequently.

A survey revealed that there was a distinct paucity in literature regarding the chemical reactions of cutaneous topical preparations. Previous investigators had determined only the reaction of the watery applications. No attempts had been made to determine the reaction of those that were nonaqueous.

Lang [2] investigated the p_H of the official Hungarian watery preparation, and found that it varied between 4.85 and 5.85, the latter being the p_H of a solution of 1 per cent resorcin, 1 per cent glycerin and 10 per cent alcohol. Perutz and Lustig [3] also found that most of the watery

1. Levin, O. L., and Silvers, S. H.: The Reaction of the Skin and Its Secretions in Eczema, Arch. Dermat. & Syph. **25**:825 (May) 1932.

2. Lang, Michael: Ueber den Wasserstoffionenkonzentration der in der Dermatologie verwendeten offizinellen Umschlagwasser, Dermat. Wchnschr. **91**:1407, 1930.

3. Perutz, A., and Lustig, B.: (1) Ueber die Wasserstoffionekonzentration der in der Dermatologie verwendeten offizinellen Umschlagwasser; Dermat. Wchnschr. **1**:509, 1930; Ueber die Pufferkapazität, Arch. f. exper. Path. u. Pharmakol. **149**: 321, 1930.

Hydrogen Ion Concentration of Dermatologic Preparations

Solutions		p_H		
Dilutions				
Saturated solution of magnesium sulphate				
1:0	Not diluted	4.98		
1:1	1 part in 1 part of water	4.96		
1:8	1 part in 8 parts of water	6.12		
1:20	1 part in 20 parts of water	6.68		
Saturated solution of boric acid		Preparation 1	Preparation 2	Preparation 3
1:0	Not diluted	5.46	4.95	4.55
1:1	1 part in 1 part of water	5.33	5.30	4.78
1:8	1 part in 8 parts of water	5.18	5.24	5.49
1:20	1 part in 20 parts of water	5.24	5.1	5.70
Aluminum acetate solution *		Preparation 1	Preparation 2	
1:1	1 part in 1 part of water	4.25	4.06	
1:8	1 part in 8 parts of water	4.36	4.42	
1:20	1 part in 20 parts of water	4.45	4.35	
Solution of aluminum acetate, N. F.				
1:0	Not diluted	3.95		
1:1	1 part in 1 part of water	3.88		
1:8	1 part in 8 parts of water	3.98		
1:20	1 part in 20 parts of water	4.08		
Salicylic acid 2.1%, boric acid 1%, water				
1:0	Not diluted	3.45		
1:1	1 part in 1 part of water	3.62		
1:8	1 part in 8 parts of water	5.04		
1:20	1 part in 20 parts of water	5.64		
Compound solution of copper and zinc sulphates (Alibour's solution) (copper sulphate, 2; zinc sulphate, 7; saturated solution of camphor water, 300)		Preparation 1	Preparation 2	
1:0	Not diluted	4.54	4.15	
1:1	1 part in 1 part of water	4.73	4.36	
1:8	1 part in 8 parts of water	4.88	4.65	
1:20	1 part in 20 parts of water	5.01	4.78	
2% salicylic acid, 2% boric acid in alcoholic solution				
1:0	Not diluted	3.95		
1:1	1 part in 1 part of water	3.96		
1:8	1 part in 8 parts of water	2.94		
1:20	1 part in 20 parts of water	3.02		

Lotions	
Calamine lotion and zinc	6.8
White lotion	Above 9.0

Ointments	
Salicylic acid 2%, sulphur 2%	3.95
Whitfield's full strength (6% salicylic acid and 12% benzoic acid)	3.75
Whitfield's—one-half strength	2.9
Compound sulphur ointment, N. F.	Above 9.0
Ammoniated mercury 1%	7.9
Ammoniated mercury 10%	5.95
Salicylic acid 1%	4.25
Strong resorcinol paste	7.05
Calamine and zinc oxide paste	7.05
Sulphur 5%	4.70
Boric acid 5%	6.90
Diachylon	6.55
Burow's cream (solution of aluminum acetate, N. F., 1 part; wool fat, U. S. P., 2 parts; ointment of rose water, U. S. P., 3 parts)	4.10
Resorcin 10%	5.9
Chrysarobin 6%	5.65
Pyrogallic acid 9%	6.5
Carboneal † paste 10%	7.6
Carboneal paste 2%	7.0
Carboneal ointment 5%	7.5
Methyl salicylate ointment 5%	6.2
Oil of cade ointment 5%	3.85

* Aluminum acetate solution is made up of lead acetate, 150 Gm.; alum sulphate, 85 Gm., and water to make 1,000 cc.

† Carboneal is a coal tar distillate. The ointment is prepared in a petrolatum and the paste in a zinc oxide base.

solutions employed in dermatologic practice have a reaction similar to that of the skin surface, and that their buffer action tends to maintain that reaction, with a p_H of from 4 to 5.

TECHNIC

Many preparations of watery solutions and lotions in various dilutions usually employed by dermatologists for topical application in different dermatoses were examined. In order to investigate preparations in ointment form we suspended them in water for about twenty-four hours, since the determination of the hydrogen ion concentration can be accomplished only in an aqueous solution. We felt that this method would approximate the condition encountered, as a rule, when an ointment is applied to the skin. The moisture usually present on the skin dissolves some of the active chemical in the salve and acts as an aqueous solution of the chemical on the surface of the skin. The procedure followed was to suspend from 2 to 4 Gm. of the ointment in 10 cc. of water and allow it to stand for about twenty-four hours at room temperature, and then to make the determination on the watery solution by means of the quinhydrone electrode potentiometer. No endeavor was made to prepare the watery solution of the salves with any unusual precaution, for it was understood that the amount of active chemical of an ointment dissolved on the surface of the skin is by no means constant, but depends on various conditions, namely: the amount of moisture present on the surface, the temperature of the skin (for most chemicals have a higher solubility quotient in increased temperatures), and, finally, on the skill with which the chemical was originally suspended in the ointment base. The preparations selected for our study were taken from the stock of pharmacies considered reliable. The ointment base was mostly a petrolatum compound. We purposely avoided having these chemicals prepared with special care, for this would have defeated the purpose of our attempt to give a working knowledge of the hydrogen ion concentration of the various preparations generally employed by dermatologists.

COMMENT

Determination of the hydrogen ion concentration of many of the preparations employed in the practice of dermatology showed that most of them have an acid reaction. White lotion and compound sulphur ointment, N. F., have a p_H distinctly alkaline. Strong resorcinal paste, N. F., and a paste of calamine and zinc oxide give practically neutral reactions. The popular watery solutions employed in dermatology have a hydrogen ion concentration, slightly above or slightly below that of the surface of the skin. Boric acid and solution of aluminum acetate, N. F., are the best buffers, dilution having little effect on their p_H. The reaction of solutions containing lime water was considered obvious and not investigated.

Although similar preparations obtained from different pharmacies were found to have different reactions, the difference was not enough to impair their usefulness. Stronger ointments did not always give a corresponding increase or decrease in the p_H because, probably, the amount of chemical dissolved out from the ointment could not be

controlled equally in all preparations. A similar condition holds when the ointment is applied to the surface of the skin. But, on the whole, the results are sufficiently interesting because they indicate the approximate p_H one may expect from the application of an ointment to the skin.

In acute eczema, the disturbance of the hydrogen ion concentration of the cutaneous surface is toward the alkaline side, hence the advantage of employing preparations such as solution of aluminum acetate, N. F., and solutions of boric acid. Because of the p_H of these solutions and their excellent buffer action, they tend to restore the reaction of the surface of the skin to normal and to allay the symptoms of the eruption. In chronic hyperkeratotic eruptions, alkaline preparations help to rid the cutaneous surface of the excessive horny layer, since keratin is only slightly resistant to alkaline preparations.

CONCLUSIONS

1. By means of the quinhydrone-electrode-potentiometer, we determined the hydrogen ion concentration of numerous preparations employed in cutaneous medicine.

2. The method used by us in determining the reaction of pharmaceutical preparations is rapid and sufficiently accurate to render it valuable for clinical medicine.

3. Most of the commonly employed local remedies used in dermatologic practice are acid or neutral in reaction.

4. The reaction of solution of aluminum acetate, N. F., and solution of boric acid is approximately that of the surface of the skin; their excellent buffer action makes them valuable in the treatment for acute and subacute inflammatory conditions of the skin and particularly for the exudative and vesicular dermatoses.

5. Aqueous mixtures of ointments containing salicylic acid gave the lowest p_H reactions.

6. White lotion and compound sulphur ointment are examples of strongly alkaline preparations; their keratolytic action is, therefore, marked.

2 East Fifty-Fourth Street.

EFFECT OF IODIDES ON THE ORGANIC LUETIN REACTION

H. J. TEMPLETON, M.D.
AND
C. B. ANDREWS, M.D.
OAKLAND, CALIF.

In 1915 Sherrick[1] struck the death blow to luetin prepared from supposed cultures of Spirochaeta pallida by showing that nonsyphilitic patients who had been given iodides by mouth prior to, or following, the intradermal injections of the luetin reacted in a falsely positive manner. Following this, the extract fell into disuse and little more was heard of luetin until recent years when a new preparation with this name was investigated by a number of continental workers as well as by Hollander,[2] Kolmer and Taft,[3] and Gandy[4] of this country. This new luetin is known as *organic* luetin and is prepared by extracting a mature syphiloma of a rabbit's testicle, which is produced by the injection into the testicle of a strain of Spirochaeta pallida of known virulence. In order to obviate the possibility of the patient giving a falsely positive reaction because of a sensitization to rabbit protein, a control test consisting of an extract of normal rabbit testicle is always run.

Many investigators have reported that the test with organic luetin is of value in diagnosing certain cases of syphilis, especially cases of tertiary and congenital syphilis. We have not had the necessary clinical material on which to study this phase of the question. Hence, we have limited our efforts to the solving of the question as to whether or not the administration of iodides by mouth causes a falsely positive reaction to organic luetin in a normal patient.

TESTS

GROUP 1.—*Effect of Oral Administration of Potassium Iodide on the Reaction to Organic Luetin in Nonsyphilitic Persons.*—Twenty-eight patients were given 20 drops of a saturated solution of potassium

From the Service of Dermatology-Syphilology at Fairmont Hospital.

1. Sherrick, J. W.: The Effect of Potassium Iodide on the Luetin Reaction: Preliminary Report, J. A. M. A. **65**:404 (July 31) 1915.

2. Hollander, L.: Organic Luetin, Arch Dermat & Syph. **17**:797 (June) 1928.

3. Kolmer, J. A., and Taft, L.: A Study of Luetin Prepared of Syphilitic Rabbit Testicle, Am. J. Syph. **14**:241, 1930.

4. Gandy, D. T.: The Interpretation of the Dermoluetin Reaction in Syphilis, Arch. Dermat. & Syph. **24**:937 (Dec.) 1931.

iodide by mouth daily for three days. On the following day 0.1 cc. of organic luetin was injected intradermally into each patient. As control, normal rabbit testicular extract was injected at another site on each patient. The patients were observed daily for three days. Twenty-six gave absolutely negative reactions. One showed a 2 plus reaction, which was probably due to a sensitization to rabbit protein, since the reaction to the control was 3 plus. Another patient reacted with an extremely weak positive reaction (+ —). The patient did not react to the control. After eight weeks, eleven patients of this group were again given the same dosage of iodides by mouth. No positive reactions were produced.

GROUP 2.—*Organic Luctin Test in Nonsyphilitic Persons.*—Twenty-five patients with no clinical or serologic evidence of syphilis were tested with organic luetin. The reactions of twenty-four remained negative. A 2 plus reaction developed in one. Four of this group did not react to luetin, but reacted positively to the controls.

GROUP 3.—*Organic Luetin Test in Syphilitic Patients.*—Eighteen elderly syphilitic patients were tested with organic luetin. Six reacted positively. As the object here is to study the effect of iodides on the reaction to organic luetin, we will not discuss this group of cases further than to state that we believe our positive results (33⅓ per cent) prove the activity of the product that we were using.

GROUP 4.—*Effect of Oral Administration of Potassium Iodide on the Cutaneous Reaction to Intradermal Injections of Agar.*—This experiment was run at the request of Dr. Sherrick, who felt (personal communication) that at the time luetin prepared from cultures was used the falsely positive reactions following ingestion of iodides were caused by the interaction of the iodides and minute traces of agar in the old culture luetin.

Ten patients were given 0.1 cc. of a 1 : 1,000 solution of agar intradermally. One week later they were all given from 10 to 20 drops of saturated solution of potassium iodide three times daily for three days. All ten patients gave strongly positive (2 plus to 4 plus) reactions at the sites of the agar injections. It should be mentioned that three of them had shown mild reactions to the agar prior to the administration of iodides.

SUMMARY

1. Potassium iodide has no effect in causing falsely positive reactions in patients tested with organic luetin.

2. There appears to be a definite positive reaction in certain syphilitic persons to organic luetin.

3. Potassium iodide in therapeutic doses causes definite focal reactions to intradermal injections of a 1 : 1,000 solution of agar.

CHANCROID

ITS PREVALENCE; ITS TREATMENT WITH SPECIFIC VACCINES

V. PARDO-CASTELLO, M.D.
HAVANA, CUBA

Chancroid, or ulcus molle, is an acute venereal ulcer of the genitals due to a streptobacillus discovered by Ducrey of Rome.

According to Cole, "chancroid is, next to gonorrhea, probably the commonest of the venereal diseases." [1]

In America chancroid is not a common condition among the well-to-do population, but seems to be fairly frequent among the lower classes and in the army and navy. Chancroid is more frequent in men than in women, in a ratio of about 15 : 1 in my experience.

Chancroid falls to the lot of the dermatologist in Europe and in Latin America, but in the United States it has been scorned by skin specialists and is usually diagnosed and treated by the venereologist or the genito-urinary specialist. Its situation in the skin of the penis or the vulva or in the semimucous surface of the genitalia warrants its inclusion among the dermatologic conditions.

Until a short time ago chancroid was considered a strictly local condition, but more recently it has been shown to awaken a general systemic reaction with the possible production of antibodies. According to Pautrier,[2] Ducrey's bacillus may exist as a saprophyte in the genitals of women and may acquire its pathogenicity under certain favorable conditions. This would explain its frequent occurrence in men and its rarity in women. Ducrey's bacillus is not a resistant organism, and cleanliness is usually sufficient to prevent infection.

The importance of chancroid has been underestimated by many, and the disease has been considered of minor importance. It is indeed a benign condition, requiring local treatment for a short time in many cases, but in others it may lead to disability, to serious economic loss and to mutilating complications such as phagedena, ulcerated buboes and gangrene of the skin.

PREVALENCE OF CHANCROID IN DIFFERENT COUNTRIES

In a statistical report presented to the Réunion dermatologique de Strasbourg in 1928, Dekeyser,[3] gave the incidence per thousand of population in Europe and America (table).

1. Cole, H. N.: The Diagnosis and Treatment of Chancroid, Ven. Dis. Inform. **10**:1 (Jan. 20) 1929.

2. Pautrier, Roederer and Ullmo: Bull. Soc. franç. de dermat. et syph. **35**:723, 1928.

3. Dekeyser: Bull. Soc. franç. de dermat. et syph. **35**:688, 1928.

Statistics of the American Dermatological Association show an average incidence of 4.48 cases of chancroid per thousand of the total number of cases of cutaneous and syphilitic diseases reported.

In Cuba, from 1925 to 1932, the number of cases of chancroid in my clinic for dermatology and syphilology was 27.16 per thousand.

In the United States chancroid seems to be more prevalent in the South, particularly among the Negro population. In Alabama, for instance, the proportion of cases of chancroid per thousand inhabitants is 12.75.[4]

In answer to a personal inquiry sent to six dermatologists of the United States, those of the East and Middle West gave a very small proportion of cases of chancroid: practically none in private practice and 3 or 4 cases a year in hospital practice. On the other hand, the yearly average number of cases of chancroid in the private practice of one of the busiest dermatologists of the South was 36.5.

Prevalence of Chancroid in Various Countries

Country	Year	Incidence per 1,000	Group
Belgium	1926	0.18	Army
France	1925	1.19	Army
France	1926	3.22	Navy
Italy	1923	12.10	Army
Germany	1923	3.40	Army
Germany	1926	2.20	Navy
Spain	1923	18.23	Army
Norway	1924	0.13	Total population
Denmark	1924	0.09	Total population
Sweden	1926	0.04	Total population
Sweden	1925	0.30	Army
Finland	1926	2.90	Total population
Russia	1911	1.00	Total population
Esthonia	1924	0.12	Total population
United States	1924-25	6.70	Total population
United States	1925	9.46	Army
United States	1925	97.98	Navy
Switzerland	1920-21	0.55	Total population
Great Britain	1924	1.4	Army
Great Britain	1924	12.10	Indian army
Great Britain	1924	12.85	Navy

The statistics of the Surgeon General's Office show a decidedly greater number of cases in the army and navy than in the civil population. Thus the report for the year 1931 shows the following numbers of cases of venereal disease per thousand in the army:[5] syphilis, 11.9; gonorrhea, 28.3, and chancroid, 7.5. The incidence in the navy for the same year was:[6] syphilis, 25.03; gonorrhea, 73.72, and chancroid, 35.02.

The number of sick days per thousand in the navy were: five hundred and sixty-six due to syphilis, one thousand and fifty-four to gonorrhea and two hundred and fifty-five to chancroid.

4. Report of Venereal Disease Clinics, J. M. A. Alabama **1**:114, 1932.

5. Report of the Surgeon General, U. S. Army, to the Secretary of War, 1931, Ven. Dis. Inform. **13**:17 (Jan. 20) 1932.

6. Annual Report of the Surgeon General, U. S. Navy, for the Fiscal Year 1931, Ven. Dis. Inform. **13**:18 (Jan. 20) 1932.

Sailors seem to be the class among which this disease is most frequent; the statement includes the merchant marine. The report of the Second Conference on Health and Welfare of Merchant Seamen [7] gave the following numbers of sailors treated for venereal diseases in Spanish ports, of whom more than half were foreigners: syphilis, 883; gonorrhea, 2,897, and chancroid, 968. Chancroid is therefore more frequent than syphilis among these men.

SYSTEMIC RESPONSE TO CHANCROID INFECTION

Chancroid is apparently a local infectious condition. Nevertheless, Tetsuta Ito in 1913 demonstrated that there was a systemic reaction in the form of allergic phenomena in persons infected with Ducrey's bacillus. He performed intradermal tests by means of a weakly phenicated suspension of bacilli, and concluded that persons suffering from chancroid reacted in a typical manner, with the formation of a wheal at the site of the injection. Ito's work remained unknown until 1923, when Reenstierna of Stockholm undertook to study anew the subject of the cultivation of Ducrey's bacillus and confirmed Ito's findings in 400 cases. Reenstierna also immunized sheep and obtained a serum which he used in the treatment of chancroid with excellent results.

In 1924 Nicolle and Durand [8] of the Pasteur Institute of Tunis confirmed the results obtained by Reenstierna, and succeeded in making a specific vaccine with which they demonstrated the specific response of the body to the infection, and which they also used in the treatment of chancroid and its complications with complete success.

The culture medium used by Nicolle and Durand is composed of broth, 1 liter, agar 2.5 Gm., potato starch 10 Gm. and one fifth of this volume of defibrinated rabbit blood.

The general systemic reaction is obtained by means of an intradermal injection of from 0.1 to 0.2 cc. of the filtrate of the cultures or of the cultures themselves, previously killed.

Nicolas, Lacassagne and Alcalay [9] reported their observations with this intradermal test. They found the test positive in 100 per cent of their patients who had chancroid or who had had the condition. They concluded that the intradermal injection of 0.2 cc. of a streptobacillary emulsion, as prepared by Nicolle and Durand, is specific for the diagnosis of chancroid.

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7. Gimeno, V.: Antivenereal Prophylaxis in Spanish Ports, abstr., Ven. Dis. Inform. **12**:108 (March 20) 1931.

8. Nicolle and Durand: Arch. Inst. Pasteur de Tunis, **13**:243 (Oct.) 1924.

9. Nicolas, Lacassagne and Alcalay: Bull. Soc. franç. de dermat. et syph. **33**:664, 1926.

The response of the patient to the intradermal test becomes positive about the eighth day of the existence of the ulcer, and the reactivity usually persists indefinitely throughout the life of the patient. This is of great diagnostic importance. Furthermore, it proves that chancroid is not a purely local condition, but that infection with Ducrey's bacillus awakens a general response from the human organism, and that probably the toxins of the bacillus pass into the general circulation.

The intradermal reaction presents its acme after from twenty-four to forty-eight hours in the form of a raised wheal surrounded by a reddish halo. In some cases there may be the formation of a blister and even of a spot of necrosis at the center of the lesion. The last-mentioned occurrence is exceptional. There is sometimes a sharp elevation of temperature for a few hours, never above 102 F. The specific cutaneous reaction should not be confused with the slight redness observed a few hours after the inoculation; the latter is transient and probably a local reaction to the proteins injected.

A positive cutaneous test signifies that the patient has or has had a chancroid, and therefore it is not precisely diagnostic as to the lesion under observation. A positive reaction does not mean that the patient is more likely to acquire the infection than a nonsensitive person, or that he is immune to it.

The intradermal reaction may be positive many years after the existence of the infection. I have obtained positive reactions in patients who had had chancroids several years before, in one case twenty years previously.

Normal persons without a history of chancroid may be sensitized. Nicolau and Banciu,[10] of Bucharest, gave 16 healthy subjects subcutaneous injections of a Ducrey bacillus antigen in quantities of from 1 to 3 cc. In 15 cases the intradermal test became positive at the end of from four to fifteen days. This sensitization was not permanent.

SPECIFIC TREATMENT OF CHANCROID

The existence of a general systemic reaction, as proved by the constantly positive intradermal tests, led many investigators in this field to believe that the use of a vaccine obtained from cultures of Ducrey's bacillus might prove of value in the therapeusis of this condition.

In 1923 Reenstierna used a specific serum in the treatment of 153 patients with chancroid complicated by buboes, all of whom recovered rapidly after one injection of 10 cc.

The manufacture of a specific vaccine in sufficient quantities and of sufficient stability to be of practical value was attempted by many

10. Nicolau and Banciu: Bull. Soc. franç. de dermat. et syph. **35**:682, 1928.

workers, but success was reserved for Nicolle and Durand, who, in the culture medium devised by them, obtained a rapid, abundant and pure growth of Ducrey's bacillus. With this culture they made a vaccine containing 225,000,000 bacilli per cubic centimeter, which they used intravenously in increasing quantities of 225,000,000 335,000,000 450,000,000 and 675,000,000 organisms per dose. This and other vaccines were used intramuscularly, but local inflammatory reactions were severe, and the therapeutic response was not so good as when they were used intravenously.

Dubreuilh and Broustet [11] were among the first to report favorably on the use of Nicolle's vaccine in complicated chancroid.

At the Réunion dermatologique de Strasbourg in 1928, devoted entirely to the study of chancroid, many favorable reports on the use of this vaccine were made, including those by Hudelo and Garnier [12] and Reilly.[13] The conclusion arrived at by the Réunion on the proposal of Pautrier was: "Vaccine therapy is the treatment of choice in cases of bubo, but the local treatment of chancroid still retains all its indications."

The intravenous injection of the vaccine is made in the morning on an empty stomach. From two to three hours after the injection there is a sharp rise of temperature accompanied by headache, nausea and general malaise. The temperature rises steadily to 104 F. or over, the bout of fever lasting about ten or twelve hours. There is a slow decline during the night, followed in some cases by a slight rise the next morning; usually by the evening of the second day the temperature becomes normal.

The injections are repeated at intervals of forty-eight or seventy-two hours, the reactions being gradually less sharp until at last, with the fifth or sixth dose, the rise of temperature is not over 102 F.

Longer febrile reactions, lasting forty-eight hours or more, have occurred in many of my cases.

Also in rare cases there may be a slight reaction or none. In these cases the activity of the vaccine may be questioned, but occasionally the patient is anallergic.

As a rule, the intensity of the intradermal test—which should always be made before this form of treatment is undertaken—is a good index of the reactions to follow. A strongly positive intradermal test is sure to be followed by high fever and strong general manifestations when the therapeutic intravenous injection is given. A doubtful or nega-

11. Dubreuilh and Broustet: Ann. de dermat. et syph. **6**:577, 1925.

12. Hudelo and Garnier: Bull. Soc. franç. de dermat. et syph. **35**:674, 1928.

13. Reilly, J.: Bull. Soc. franç. de dermat. et syph. **35**:748, 1928.

tive test is indicative of a probable slight response to intravenous injections of vaccine.

Correspondingly, the response of the disease is in direct ratio to the febrile and systemic reactions.

Therapeutic results are, in my experience, excellent, particularly in complicated chancroid. In uncomplicated chancroid the ulcers usually heal under vaccine therapy in from three to ten days with only local cleansing measures, but in about half the cases the response is not so good unless local antiseptic treatment is applied, presumably on account of abundant secondary infection.

In cases of chancroid complicated with buboes, these melt down after the first injection, and after four or five injections they disappear without discharging. Even when the buboes are of fluctuating type and incision seems inevitable, the injection of 225,000,000 bacilli is enough to check the progress of the condition and avoid the use of the knife.

In phagedenic complications of the chancre itself or of the bubo after ulceration, the ulcers stop growing at once, and the healing process begins immediately. In one of my cases healing of a chancroidal bubo which had existed for several months, in the form of a serpiginous ulceration of the groin and abdominal wall, took place in a few weeks.

There are few contraindications to the use of the vaccine, and these are old age, renal disease and advanced heart disease. In several thousand injections I have never seen a fatal result. In five years of constant use of the vaccine in Petges' clinic in Bordeaux there was not a single accident.[14]

Is this vaccine specific or does it act as a foreign protein? This question has been considered and discussed by many, and the general consensus is that the vaccine is specific for the following reasons: Foreign proteins, such as milk, whole blood and typhoid vaccine, although having a beneficial effect, do not act as quickly and thoroughly as Nicolle's vaccine, either when followed by high fever or when no systemic reaction occurs. The direct relationship between the positivity of the intradermal test and the therapeutic activity of the vaccine points to specificity. Moreover, Nicolas[15] and his co-workers demonstrated that the intradermal test becomes negative after the fourth intravenous dose of vaccine, that is, about eight days after the beginning of treatment. It becomes positive again ten or twelve days after the discontinuance of treatment. When this investigator injected typhoid vaccine and other proteins into patients with chancroid, the intradermal reaction remained positive.

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14. Dejean: Ann. d. mal. vén. **26**:728 (Oct.) 1931.
15. Nicolas: Bull. Soc. franç. de dermat. et syph. **34**:500, 1927.

In Havana, Ferrer,[16] was the first to report the use of this mode of therapy. Mestre [17] also reported the treatment of 36 cases of ulcus molle in my service in 1929. Both reports were enthusiastically favorable.

PERSONAL EXPERIENCE

I have used the vaccine of Nicolle and Durand in my hospital service and in a few private cases since 1927 with uniformly good results.

Since 1927 in the dermatologic and syphilologic service more than 400 patients with chancroid have been treated, about half of whom were given vaccine.

During the years 1930 to 1932 there were 173 cases, in 114 of which local measures alone were employed, and in 59, vaccine therapy alone or in conjunction with local measures. In the latter group, 28 were complicated with buboes, 4 showed phagedenic ulcers, and in the remaining cases the lesions were large ulcers usually inaccessible because of phimosis.

In the 114 patients treated locally the maximum healing time was ninety days and the minimum eight days, with an average of thirty-two and a half days. Most of these cases were uncomplicated.

In the 59 patients treated with the vaccine and local measures combined the maximum healing time was thirty-two days and the minimum four days, with an average of thirteen days. It is to be noted that in most of these cases chancroid was complicated with bubo or phagedena, and that in spite of this fact the healing time was reduced to less than half.

Failure of the vaccine was recorded in less than 5 per cent of my series of cases. This I consider to have been due to defective or inactive vaccine or, in cases of bubo, to far advanced secondary infection, in which a discharge occurred in spite of vaccine therapy.

As a result of this experience I feel justified in drawing the following conclusions, which are on the whole in complete accord with the observations of most European physicians who have had experience in this matter:

CONCLUSIONS

1. Vaccine therapy is indicated in all cases of bubo, phagedena and phimosis with inaccessible chancroids.

2. In uncomplicated chancroid, local treatment by means of cauterization with pure phenol and dressings of iodoform powder is usually sufficient to bring about a rapid cure. In some cases electrodesiccation followed by iodoform dressings gives the best results.

16. Ferrer, I.: Rev. méd. cubana **39**:937 (Aug.) 1928.
17. Mestre, J. J.: Bull. Soc. cuba. Dermat. **1**:3 (June) 1929.

3. In the inflammatory cases with secondary infection, wet dressings of potassium permanganate or of copper sulphate 1 : 1,000 are indicated previous to cauterization. If the lesions fail to heal or if there is any tendency to spreading, vaccine therapy is indicated even in the absence of complications.

4. Patients under treatment for chancroid should be kept ambulatory when possible, in order that their earning power may not be interfered with, but when the vaccine is indicated, the loss of work due to the required hospitalization or confinement in bed at home is more than amply justified by the reduced duration of the disease.

VITAL REACTIONS OF THE PULP OF TEETH IN SYPHILIS PRODUCED BY INDUCED CURRENTS

A PRELIMINARY REPORT OF ONE HUNDRED AND TEN CASES

WILLIAM R. PENTZ, B.S., D.D.S.
PHILADELPHIA

A brief résumé of the previous work on pulpal reactions should be given at this time. Only one or two observations have been recorded.

In 1925 and 1926 Dr. Milton C. Borman and I, during our internship at the Philadelphia General Hospital, made dental examinations of all tabetic and paretic patients in that institution. We found that in 94 per cent of these patients the pulps of the teeth showed marked abnormalities, ranging from hyperesthesia to anesthesia. Through the kindness of Dr. N. W. Winkelman and his laboratory staff at the Philadelphia General Hospital, sections of some of the pulps were made, and examination revealed the histologic changes which are found in other nerve tissue in neurosyphilis. The results of this work were published.[1]

From 1927 to 1930 I secured some gasserian ganglions at postmortem examinations in the Philadelphia General Hospital. These specimens were from both syphilitic and nonsyphilitic persons. The ganglions were sectioned and stained in Dr. Winkelman's laboratory, and again typical syphilitic degeneration was found. In one or two cases in which the ganglions were obtained from edentulous syphilitic patients, some degeneration of the second and third branches of the ganglions was observed. Mention of this fact was made by Oppenheim. In another case, an interesting specimen taken from a patient with chronic alcoholism showed a decided degenerative change in the ganglion. The results of this work were presented before the International Dental Society at Toronto, Canada, in September, 1930, in a paper which Dr. Joseph Appelton read for me.

The present work, of which this is a preliminary report, is the third logical step in this series toward the completion of dental observations in syphilitic infection. Just what will ultimately be found or what conclusions will be drawn I do not yet know.

From the Department of Neurology, Temple University School of Medicine.

1. Pentz, W. R., and Borman, M. C.: Dental Sensation in Syphilis of the Central Nervous System, Arch. Neurol. & Psychiat. **16**:629 (Nov.) 1926.

TECHNIC

The apparatus used is the ordinary laboratory 2 volt dry cell, connected with a common induction coil which is so arranged that the voltage may be increased or decreased as desired. It is the ordinary coil used in laboratories, at one end of which a make and break key or vibrator is attached. The electrodes are of the common two point type. The dry cells are changed every three months to insure the use of a standard voltage at all times.

The method of testing the teeth is simple. After the current is turned on, the smallest amount of current necessary to cause a sensory reaction of the pulp is used. This is done for each tooth, and the result is tabulated immediately. Only teeth free from fillings and caries are tested, in order to avoid any hypersensitivity or lessening of the sensory activity. Hopewell-Smith contended that caries and fillings in teeth produce pathologic changes in the pulp and hence change its sensitivity. The teeth used in this test are those from the second premolar to the second premolar, inclusive, in both the upper and the lower jaw. The controls were teeth of normal persons; the teeth selected were the same and answered the same requirements. The students of the Temple University School of Medicine submitted to the control tests.

RESULTS

The results in the 110 cases of syphilis have been most interesting. A curve plotted from the reactions of the pulps in the syphilitic persons tested shows a sharp and continuous drop from the primary irritation point; i. e., the amount of current necessary to produce a reaction in the pulps of infected persons was so varied and so tended toward the indication of anesthesia in these pulps that comparative graphs of normal and syphilitic persons show that the latter have a much lower sensory response. The tables and graphs on which these facts are based clearly show this wide variation in the reactions of the pulp to the test. There seem to be no definite limits within which the sensory action of the pulp falls; the thresholds of sensitivity do not form a smooth curve. but one rather that is erratic and irregular.

On the other hand, the amount of current necessary to produce a reaction of the pulp in the teeth of normal persons shows a more uniform gradation, giving a rather definite, regular curve. It must be understood that the norm of response varies for each subject. Once the norm has been established, definite limits are clearly shown in the variations of the amount of current used to obtain a reaction from the pulp. In some cases there was a variation which cannot be accounted for at this time; however, even in these cases the difference seemed to follow a regular curve; that is, mate teeth did not exhibit much inconsistency in regard to the point of irritation. There may be marked differences, however, in the canines and centrals of the maxillae or in the premolars and laterals of the same processes. The variation from the mean in the normal person is not very great. It seems to me that the variations in the normal subjects may possibly be due to differences in the thickness of the enamel or to the amount of calcification of the

teeth. Those familiar with dental structures will agree that such conditions are readily noted macroscopically. This is also true in the case of syphilitic persons, but here it is possible to observe a different set of reactions, which are too great to be explained by the structure of the tooth alone.

I believe, and study plus clinical observation makes this thesis tenable, that when calcification of the tooth has been completed, the reason for the existence of the pulp has ceased. From that time on the pulp is not an activating organ but a purely sensory one that gradually undergoes normal retrogression. Since this process is normal, it is attended with no ill effects either to the tooth or to the person. In certain cases of secondary syphilis there occur degenerative or retrogressive changes which appear to me to be abnormal. Histologic sections made in the work previously carried out tend to substantiate this statement. The syphilitic patient is rarely aware of any untoward change in his teeth unless hyperesthesia happens to develop. The curve for the reactions of the pulp is not smooth, but is likely to be broken by sharp rises or drops, which are not found in the normal curve. Then, too, the youth of the subjects would seem to preclude such a retrogressive process, though one may expect to find partial or total loss of the sensory function of the pulp producing a corresponding amount of anesthesia in persons in their late sixties or seventies. The weight of evidence, however, is against such a possibility prior to these ages. In the cases of normal regression of the pulp which I have been able to observe, I found a dried threadlike piece of tissue, whereas in the cases of syphilis there was what appeared microscopically to be a normal and healthy pulp. Histologic sections showed, however, that there was degeneration of the nerves.

Another interesting phenomenon is that hyperesthesia or anesthesia is not common to all cases of secondary syphilis. Case after case was observed in which the pulp apparently reacted normally, and I feel that one may be justified in calling such pulps normal. In these cases the pulps have not been involved by the infection. Thus far I have never seen any spirochetes in the pulpal tissue, nor have I ever recovered any. Spirochetes have been found in the brain and the cord in many cases of syphilis. It should be borne in mind that at the time the tests were made the case histories did not show any involvement of the nerves other than the observed pulpal reaction.

Wide variations in the pulpal reactions are found in patients with congenital syphilis, with faulty development of teeth or Hutchinson's teeth. Erratic reactions would naturally be expected in such malformed teeth. As all persons suffering from congenital syphilis do not have Hutchinson's teeth, it would seem that there is some selective action by

the organism for nerve tissue. It is well established that the pulp of the tooth is the primary activating force to the enamel organ which forms the tooth. Therefore, it is not too great a stretch of the imagination to accept the theory that any factor which affects this nerve mechanism will be apparent in some fashion, e. g., malformation of the tooth. Just as interstitial keratitis occurs in syphilis, probably as part of a trophic disturbance, so Hutchinson's teeth may be a similar expression. The regularity of the pattern in the formation of Hutchinson's teeth is also beyond comment. This condition appears to be a further substantiation of the belief that there is a distinctly selective action of the organism for nerve tissue in some cases and not in others. I feel justified in calling attention to the fact that here, in the same infection, two definitely varied manifestations of the presence of the organism exist. Because Hutchinson's teeth are so consistent in their variation from the normal, there is no possibility of confusing this malformation with that caused by measles, scarlet fever and other conditions.

While these tests were being made, certain conditions were discovered which in practice would be classed as abnormal. It would seem presumptious, however, to expect acceptance of such intuitive evidence. But how often in practice is a diagnosis based on intuitive evidence that later is found to have been correct!

With the cooperation of Dr. Hicky of the department of physiology of Temple University School of Medicine and of the dermatologic research laboratories, animal experimentation is being conducted for research into the possibilities of definite effects on the enamel organ and the dental nerves. Owing to the length of time necessary for the appearance of a reaction to the inoculation and the difficulty in preparing the material, the results of this experimentation are not completely available at this time. When they are ready, they should offer additional information concerning this subject which should be of great interest.

SUMMARY

1. In normal persons there is a variation in the pulp of the teeth which falls within definite limits.

2. In syphilitic infection the secondary stages show a definite variation in some persons that is not paralleled in others.

3. Patients with congenital syphilis are not all dentally affected by the disease. The question as to why this should be so gives us an interesting field for speculation on which some light may be thrown by my experimentation with animals.

4. An unexplained variation in the reactions of the pulp occurs in secondary syphilis.

5. The results up to this time indicate that in persons with secondary syphilis whose dental pulp varies greatly from the normal the infection may have a distinct predilection for nerve tissue and may tend toward neurosyphilis as its ultimate manifestation.

Dr. N. W. Winkelman gave invaluable assistance which made possible this research work in his department at the Temple University School of Medicine and the Graduate Hospital. The use of the clinical facilities of the Temple University Medical School and the Graduate Hospital was made possible through Dr. Carroll Wright. Dr. Jacques Guequier offered me the use of his clinic in the Graduate Hospital. Dr. W. H. MacKinney, Dr. R. Friedman and Dr. L. G. Smith also cooperated with me.

ERYTHEMA CALORICUM ASSOCIATED WITH A REMOTE REACTION TO HEAT (NEURODERMATITIS AND DYSHIDROSIS)

HEAT ALLERGY

HAROLD TANNENHOLZ, M.D.
DETROIT

The literature contains many case reports of that characteristic cutaneous reaction to the extended local application of heat variously known as erythema ab igne, erythema caloricum, dermatitis ab igne, dermatitis calorica, livedo reticularis pigmentosa (calorica) and cutis marmorata pigmentosa. The history in these cases was usually that heat was applied directly for therapeutic purposes, or that from occupation or habit the patient came in close contact over an extended period with more or less intense heat, either dry or moist. Cases have been reported by Abramowitz,[1] Mook,[2] Freund,[3] Wise,[4] Levin,[5] Traub,[6] Walzer,[7] Bechet [8] and Little.[9] The lesions described varied from small patches of festooned erythema to more extensive areas of reticulated erythema and pigmentation, occasionally containing scaling, lichen planus-like papules or elevated flat plaques.

From the Section of Dermatology of the Department of Medicine of the University of Chicago.

1. Abramowitz, E. W.: Dermatitis ab Igne, Arch. Dermat. & Syph. **8**:102 (July) 1923; Erythema ab Igne, ibid. **14**:224 (Aug.) 1926.

2. Mook, W. H.: A Case of Erythema ab Igne, Arch. Dermat. & Syph. **8**:251 (Aug.) 1923.

3. Freund, F.: Scleroderma diffusa, Zentralbl. f. Haut- u. Geschlechtskr. **17**: 851, 1925.

4. Wise, Fred: Erythema ab Igne, Arch. Dermat. & Syph. **22**:592 (Sept.) 1930.

5. Levin, Oscar L.: Erythema ab Igne, Arch. Dermat. & Syph. **14**:478 (Oct.) 1926.

6. Traub, Eugene: Erythema ab Igne, Arch. Dermat. & Syph. **16**:781 (Dec.) 1927.

7. Walzer, Abraham: Erythema ab Igne, Arch. Dermat. & Syph. **18**:148 (July) 1928.

8. Bechet, Paul E.: Erythema ab Igne, Arch. Dermat. & Syph. **18**:629 (Oct.) 1928.

9. Little, E. G. G.: Erythema ab Igne, or Alternately, Lichen Planus, Proc. Roy. Soc. Med. **22**:1013, 1929.

In 1926, Michael [10] reported the results of his study of the effects produced on the skin by heat and of the development of "cutis marmorata pigmentosa." Using a special cast in which the subject was placed, and into which hot air could be introduced, he observed through a glass window in the cast the cutaneous reactions to temperatures varying between 45 and 140 C. [113 and 284 F.]. Between 50 and 60 C. [122 and 140 F.], the skin assumed a delicate bright red flush which increased in extent and became more scarlet as the temperature was increased from 60 to 100 C. [140 to 212 F.], when the follicles became very prominent as bright red punctae, the entire skin assuming the appearance of a red cutis anserina. As the temperature was raised to between 80 and 120 C. [176 and 248 F.], pale areas appeared, and the erythema became reticulated. In patients who had been receiving heat therapeutically for a considerable time, this retiform cutaneous reaction was found to develop in the cast with temperatures between 60 and 85 C. [140 and 185 F.], appearing more rapidly and intensively the more intensive the preceding treatment had been, in some cases developing without any preceding erythema. Michael stated that this retiform reaction always preceded the development of cutis marmorata pigmentosa. He also observed that skin previously treated with heat was more susceptible to the action of light—in fact, that its irritability was increased toward all irritants, mechanical, thermal or chemical. This irritability would last for days and even weeks.

The observations of Lewis,[11] who made an exhaustive study of the functions of the blood vessels of the human skin in his research on the reaction of the skin to heat, may be summarized briefly as follows:

The reaction to heat as well as to any other external irritant is threefold: First, a local vasodilatation and reddening of the skin independent of the action of the nervous system occurs. Second, a reflex action takes place through the central nervous system. Stewart [12] showed that soaking the left hand in hot water causes a concomitant vasodilatation of the vessels of the right hand. Anesthetization of the nerves to the right hand [13] or removal of the lower cervical sympathetic ganglions [14] abolishes the reflex. Third, there is a reflex action through

10. Michael, Max: Ueber Hitzewirkung auf die Haut und die Entstehung der "Cutis marmorata pigmentosa" (Buschke-Eichhorn), Dermat. Wchnschr. **83**:1862, 1926.

11. Lewis, Thomas: The Blood Vessels of the Human Skin and Their Responses, London, Shaw & Sons, Ltd., 1927.

12. Stewart, G. N.: Studies on the Circulation in Man: I. The Measurement of the Bloodflow in the Hands, Heart **3**:33, 1911.

13. Wiedhopf, Oskar: Experimentelle Untersuchungen über die Wirkung der periarteriellen Sympathektomie und der Nervenvereisung auf die Gefässe der Extremitäten, Beitr. z. klin. Chir. **130**:399, 1924.

14. Kohler, R., and von der Weth, G.: Die Wirkung der cervicalen Sympathektomie auf die Angina pectoris und die Ausfallserscheinungen nach diesem operativen Eingriff, Ztschr. f. klin. Med. **99**:205, 1924.

the "axon reflex." The step extension of the histamine flare is due to variation of the tone of the blood vesseds in the adjacent skin. If on the tested skin there are areas in which the tone of the minute vessels was injured many days or weeks before, as by ultraviolet rays, it is not very unusual to see these areas light up when the histamine flare comes, although the main flare lies some distance away. Lewis cited the case of an old lewisite burn on an arm. The area would light up and become markedly erythematous when the skin was stimulated with histamine as far as 170 mm. distant.

During the past ten years Duke has made a careful study of the reaction of the skin to various physical agents. In 1923, he [15] reported the results of his observations on the production of urticaria by the action of light on the skin. In 1924, he reported [16] his observations on urticaria and various eczematoid reactions caused by the action of light, heat, cold, freezing, burns, mechanical irritation and physical and mental exertion. In 1925, Duke introduced the conception of physical allergy,[17] stating that the symptoms of bronchial asthma, vasomotor rhinitis and conjunctivitis, photophobia, abdominal pain, erythema, pruritus, urticaria, angioneurotic edema, eczema and shock can be caused in some patients specifically and solely by the action of a physical agent, and in the cases of sensitiveness to heat, indirectly by mental and physical exertion. More recently, Duke [18] reported his observations on a large number of patients sensitive to heat or cold. He found in patients showing a definite sensitiveness to heat that if one arm was immersed in water at 42 C. [107.6 F.] there would develop at the usual sites of outbreak (face, chest, back and extremities) the customary symptoms and cutaneous phenomena—erythema, urticaria and various eczematoid reactions. These symptoms would disappear when the patient was rubbed with ice. The majority of Duke's patients had very unstable temperatures (from 92 to 98 F.) and basal metabolic rates (usually very low), and exhibited hyperesthesia to cold or heat.

Recently a patient in whom a very unusual reaction developed when he was exposed to heat was studied at the university clinics.

REPORT OF CASE

History.—A white man, aged 43, a carpenter, entered the clinic in January, 1932, because of an infection of the right forearm which had been present for about two weeks. He enjoyed excellent health prior to July, 1931, when he noticed

15. Duke, W. W.: Urticaria Caused by Light, J. A. M. A. **80**:1835 (June 23) 1923.

16. Duke, W. W.: Urticaria Caused Specifically by the Action of Physical Agents, J. A. M. A. **83**:3 (July 5) 1924.

17. Duke, W. W.: Physical Allergy, J. A. M. A. **84**:736 (March 7) 1925.

18. Duke, W. W.: Heat and Effort Sensitiveness; Cold Sensitiveness, Arch. Int. Med. **45**:206 (Feb.) 1930.

pruritic, vesicular lesions on the buttocks following bathing. After that the lesions spread more or less rapidly until they involved both legs and, more recently, the arms and hands. Various ointments had only aggravated the condition. About two weeks previous to presentation, one of the lesions on the right forearm became painful and swollen, a purulent discharge developed, and recently he noticed "red streaks running up the arm." He stated that since its onset the condition had always been worse during hot weather or whenever he worked under hot, humid conditions; even when he happened to sit next to a hot radiator, new lesions would appear, and the older ones would become much more pronounced. During the colder months he enjoyed some relief.

Examination.—Examination revealed a well developed and well nourished white man who did not appear acutely ill. His temperature, taken on several occasions, varied between 98.4 and 98.6 F. The basal metabolic rate, taken on one occasion, was plus 4. The Kolmer and Kahn reactions of the blood serum were normal. The blood count and examination of the urine showed nothing of importance. The blood pressure was 106 systolic and 68 diastolic, which is rather low, as it is often found to be in patients with neurocirculatory instability. On the extensor surface of the right forearm, midway between the elbow and the wrist, were two adjacent eroded lesions about 3 cm. in diameter covered with a purulent exudate and surrounded by an erythematous halo. Extending upward from the lesions toward the axilla were several red streaks. The glands in the right axilla were slightly enlarged and tender. On the dorsal aspect of both hands, including the fingers, on the flexor surfaces of the wrists and over the buttocks were erythematous, scaling, fissured, slightly lichenified plaques. On Jan. 21, 1932, when the patient returned, the lymphangitis had disappeared, and the lesion had improved. By Jan. 28, 1932, the lesion had almost healed.

I next tested the patient's reaction to heat. He removed his clothing to the waist, and took a seat with his back about 30 inches (76.20 cm.) from an electric heater of the ordinary reflector type. In about fifteen minutes there developed over his back a brilliant reticular erythema—a typical erythema caloricum. At the same time the lesion on the right forearm, which had almost completely healed, became brightly erythematous, and a rather marked exudation of serum occurred. Numerous minute, deeply seated vesicles appeared on the lateral surfaces of the fingers of both hands. The lichenified plaques on the wrists became markedly erythematous and definitely raised. On the flexor surfaces of both elbows, but most marked on the right, appeared groups of brightly erythematous papulovesicular lesions on what had previously appeared to be almost normal skin. The patient complained of slight itching and burning. The reactions subsided within an hour following the removal of the heat. On Feb. 6, 1932, the patient's left arm was immersed in an arm-bath at 42 C. [107.6 F.]. In about fifteen minutes the arm became brightly erythematous, the erythema assuming the reticular pattern just described. At the same time, the phenomena on the fingers, hands, wrists and flexor surfaces of both elbows previously described developed. The healed lesion on the right forearm became brilliantly erythematous, and there was a slight exudation of serum. On Feb. 13, 1932, the patient's left arm was immersed in cold water (7 C. [44.6 F.]). A diffuse, regular, somewhat livid erythema developed, although no changes occurred in the other before-mentioned areas. On Feb. 22, 1932, the patient worked for several hours in an overheated room. He perspired freely; the face, hands, arms and buttocks became erythematous and intensely pruritic. Following each of the tests, the patient was rubbed with ice. This had no effect on the lesions, nor did the patient experience any relief. On Feb. 29, 1932, the experiment of immersing the left arm in water at 42 C. was repeated,

but prior to immersion a tourniquet was applied tightly about the arm. The phenomena previously described developed. Duke [17] had also performed this experiment and had obtained the same result. He used his findings as evidence to refute the theory that some substance was formed locally by the action of the heat and carried in the blood stream to remote areas, where it acted as the exciting agent in the production of the more remote dermatitis. Lewis,[11] however, has pointed out that although such a tourniquet would greatly inhibit the flow of blood from the forearm, it would not cut it off entirely bacause of the collateral circulation existing through the humerus by way of the deep humeral vessels at the elbow joint.

Treatment and Course.—On April 15, 1932, histamine (0.5 mg.) was injected intracutaneously into the patient's right arm. An erythema developed, spreading to include almost the entire upper part of the arm, while a large wheal about 2 by 4 cm. appeared with long, pseudopodia-like processes. There was some accentuation of the existing dermatitis on the right forearm and hand, but other than a slight flushing of the face, the dermatitis elsewhere showed no change.

The dermatitis remained essentially unchanged by local therapy. The patient suffered frequent acute exacerbations whenever he returned to work.

COMMENT

The case presented gives a history and experimental evidence of sensitization to heat. The eruption which the patient presented was a combination of eczematoid exudative neurodermatitis, as studied by Kreibich, and dyshidrosis. He manifested a marked local reaction to heat in the form of erythema caloricum, and this was quickly followed by exacerbations of preexisting lesions and the appearance of new lesions. Some of the new lesions appeared at the fold of the elbow, which is a characteristic site for neurodermatitis. I should be hesitant relative to the use of the term "heat allergy," since, according to the definition used in this clinic, allergy is "a more rapidly appearing and more marked reaction to irritation, characterized by antigen-antibody reaction in a patient whose hypersensitiveness has been produced by previous contact with this irritant." It may be that future study will show that the cases of so-called physical allergy meet all the requirements of this definition. If one expands the idea of allergy to include all cases of hypersensitiveness, the situation here is somewhat similar to that in eczemas as they are commonly conceived in this country. I believe that until more is known relative to the mechanism of the reaction it would be better to limit the idea of allergy to this definition and utilize the term "hypersensitiveness" for patients who are hypersensitive to physical agents.

My case presents a tangible cause for the type of dermatitis which I have called neurodermatitis and dyshidrosis. It is unusual to find this tangible cause, although mental and nervous excitement are often followed immediately by such a reaction. Duke is inclined to believe that many cases of neurodermatitis are due to an allergy to heat. It is true that many of these patients complain that they are worse during

hot weather or when they get overheated. On the other hand, a large majority of them are distinctly better in the summer than in the winter. It seems that much of the irritation which many patients experience when heated is due to irritation of the lesions by the sweat, from which the lesions obviously cannot be protected by any external application. A study similar to that presented here was made in a patient who was certain that her dermatitis was caused and aggravated by exposure to heat. The study was entirely negative as regards both local production of erythema caloricum and aggravation of the lesions. It has been stated that it is impossible to occlude all of the vessels which return blood from a limb, so that it is not possible to determine whether the remote effect is due to local production of substances which are being carried in the blood stream to other parts of the body or to nervous influences. It would seem that sensitization to heat is one of perhaps many causes for the type of lesion presented by my patient, namely neurodermatitis and dyshidrosis. Considerable work needs to be done relative to the mechanism of the production of these lesions.

SUMMARY

The literature on erythema caloricum is reviewed and summarized. Michael's study of the reaction to heat of the normal skin and of the skin of patients who had previously received heat therapeutically is reviewed, together with his observations of the development of retiform erythema and cutis marmorata pigmentosa. The work of Lewis on the functions of the blood vessels of the human skin and on their relation to the reaction of the skin to heat is summarized. Duke's studies of the reaction of the skin to physical agents and his conception of physical allergy are reviewed. A case of sensitization to heat is reported —that of a patient in whom there developed both a local reaction (erythema caloricum) and a remote reaction (neurodermatitis, dyshidrosis) to the local application of heat, as well as to heat generated during effort. The validity of the term "physical allergy" is discussed. "Hypersensitiveness to physical agents" seems to be preferable.

968 Fisher Bldg.

DERMATITIS CAUSED BY ETHYL GASOLINE

DAVID W. JOHNSON, M.D.
WHITE PLAINS, N. Y.

The patient was a man, aged 30, married, with no children. The past history was essentially without significance, except that part which concerned the dermatitis. Three days before I saw him, an urticarial eruption developed, which involved the entire body, with edema of the lips, eyelids, hands and feet. There were pain in the joints, headache, chills and nausea, with a slight rise in temperature. The patient had been in contact with ethyl gasoline, which he was testing, about six hours before the eruption developed. He complained of considerable itching in the erupted areas. The first examination revealed a generalized urticarial eruption. Some of the wheals were about the size of a half-dollar; others varied from 2 to 3 cm. in diameter. They were most pronounced on the arms, forearms and back. Interspersed between the wheals was an erythematous eruption, circinate in type. A detailed history revealed that the patient had worked with tetra-ethyl lead in 1924, as a tester and research worker. After one year of this work he began to suffer from slight pain in the joints, loss of appetite, constipation and loss of weight. He was examined at this time, but the results of the examination were not made known to him. No eruption had as yet developed, but because of his poor health he gave up the position. He was transferred to the millwright department, where he was employed for six months; again he discontinued working because of symptoms similar to those previously experienced. For a time he was employed as a real estate operator. He felt better in this occupation, but for financial reasons he obtained a position as automobile mechanic.

This was during 1925 and 1926. He then had about ten recurrences of the eruption. He noticed that handling carburetors and gasoline caused his skin to itch. He discontinued this work and obtained employment repairing metal and wood on cars. During this time there were no further outbreaks on his skin. In 1929 he purchased a gasoline service station. There was no eruption of the skin while he was engaged in this business. No ethyl gasoline was sold by him, and no repair work was done. The patient then went south, returning north after a few months. At this time he did a repair job on the car of a friend who used ethyl gasoline, and he had another acute outbreak of dermatitis. He then obtained employment with an asbestos corporation, doing insulation work, and was free from symptoms. He later obtained employment with another gasoline service station, and since then he has had several attacks of the eruption. The blood count was normal.

The eruption disappeared in two days, with the application of simple soothing lotions. Sensitization tests were then carried out with various substances with which the patient was in contact. All these substances gave negative reactions, except ethyl gasoline, which caused a slight reaction in dilutions of 1:500 and 1:100. In dilutions of 1:50 and 1:25 it caused a mild reaction, and in dilutions of 1:10 and 1:5, a marked reaction.

Undiluted ethyl gasoline produced the most marked reaction, with the development of a generalized urticarial eruption. Control tests showed no reaction to adhesive tape, kerosene or to plain gasoline. The tests were patch tests and were carried out in the usual manner.

CONCLUSION

I believe this to be a case of dermatitis caused by ethyl gasoline. There must be many more such cases in existence which have not been reported.

52 Greenridge Avenue.

COCCIDIOIDAL GRANULOMA

REPORT OF A CASE ORIGINATING IN WESTERN TEXAS

LESLIE M. SMITH, M.D.
EL PASO, TEXAS

Since the report by Rixford and Gilchrist [1] in 1896 of a condition which was then considered to be due to protozoan infection and the later studies of Ophüls,[2] which showed that the parasite is a fungus, a considerable number of cases of coccidioidal granuloma have been reported in the United States. Although occasional sporadic cases have been recognized in various parts of the country, the great majority of the cases reported have originated in California. There is a growing feeling, which was voiced by Jacobson,[3] that the disease is more common and more widespread geographically than is generally supposed. The close clinical and histologic resemblance of the disease to tuberculosis and the neglect of mycologic study naturally lead to some mistaken diagnoses of tuberculosis, especially in sections of the country where coccidioidal granuloma is not known to exist.

As a rule, the disease attacks primarily the skin or the respiratory tract, but it may eventually involve, by way of the blood stream and lymphatics, the bones, liver, spleen, kidneys, meninges, brain, pericardium and other tissues. Jacobson [3] has reported a case of apparently primary infection of the female pelvis. Ophüls expressed the belief that the majority of cases are primarily infections of the respiratory tract. He stated that even though clinically the cutaneous lesion may appear to be primary, pulmonary lesions are almost always found at autopsy.

The seriousness of coccidioidal infection is indicated by a reported mortality of 85 per cent; however, there are in the literature some encouraging reports of the beneficial effects of various forms of treatment. Ophüls stated that spontaneous recovery or quiescence occasionally occurs. Further time and observation are therefore necessary before any reported cures can be finally accepted.

The photomicrographs were made by Dr. George Turner.

From the Dermatologic Department of the El Paso City-County Hospital.

I was assisted in the study of the case to be reported by the laboratory staff of the City-County Hospital and of Dr. George Turner's laboratory.

1. Rixford and Gilchrist: Johns Hopkins Hosp. Rep. **1**:209, 1896.

2. Ophüls: J. Exper. Med. **6**:443, 1905.

3. Jacobson, H. P.: Coccidioidal Granuloma, Arch. Dermat. & Syph. **21**:790, (May) 1930.

4. Ophüls, W. O., in discussion on Evans, Newton, and Ball, H. A.: Coccidioidal Granuloma, J. A. M. A. **93**:1881 (Dec. 14) 1929.

Guy and Jacob [5] reported apparent cure from the combined use of antimony and potassium tartrate and roentgen therapy, and Jacobson [3] from injections of colloidal copper and coccidioidin. Chipman and Templeton [6] noticed benefit from iodides and compound solution of iodine, and later obtained resolution of the lesions with Jacobson's treatment. In a recent report, however, Ball [7] said that he was skeptical regarding the results to be obtained from any of these methods. He obtained healing of a lesion involving the forehead and skull with wet dressings of a saturated solution of iodine in a 5 per cent solution of potassium iodide and the internal administration of sodium iodide. This type of treatment is obviously applicable only to accessible lesions, but Bell's success in this case led him to suggest a similar solution for the irrigation of cavities in the deeper type of lesion.

With the exception of the cases occurring in California, few have been reported in the Southwest. Caldwell [8] recently reported three cases observed in Dallas, at least two of which originated in Texas. He also mentioned two cases observed by others. Sweek and Harlan [9] studied one case in Phoenix, but the patient had come from California with the disease. The case reported in this article originated in the district about El Paso, Texas. So far as I can ascertain, no previous cases have been recognized or reported within several hundred miles of El Paso.

REPORT OF A CASE

History.—Mr. R. L. S., aged 63, a bricklayer, who had been a resident of Texas for six years, was admitted to the El Paso City-County Hospital on March 27, 1932. He had never lived in California, and had not been out of El Paso County for two years. Eight months prior to admission he had a lesion that was considered a "boil" on the ulnar side of the right forearm, just above the wrist. There was no history of injury at this site. A series of similar lesions, beginning just above the original one and extending almost to the elbow, soon developed. The lesions gradually suppurated and discharged pus, leaving sinuses surrounded by indolent granulations. A few of the sinuses healed, but almost at the time of admission the entire forearm was indurated. Several of the sinuses were exuding pus, and others discharged pus on pressure. There was only slight tenderness on pressure. There were no general symptoms.

Examination.—General examination revealed essentially normal conditions. The blood was normal, and the Kahn test was negative. Roentgen examination of

5. Guy, W. H., and Jacob, F. M.: Granuloma Coccidioides, Arch. Dermat. & Syph. **16**:308 (Sept.) 1927.

6. Chipman, E. D., and Templeton, H. J.: Coccidioidal Granuloma, Arch. Dermat. & Syph. **21**:259 (Feb.) 1930.

7. Ball, H. A.: Healing of Coccidioidal Granuloma Following Medicinal Therapy, J. A. M. A. **98**:2279 (June 25) 1932.

8. Caldwell, G. T.: Coccidioidal Granuloma: A Report of Three Cases Recognized in Texas, Texas State J. Med. **28**:327, 1932.

9. Personal communication to the author.

the chest showed fibrotic markings throughout the lungs which were not distinctive of any particular pathologic condition. Roentgenograms of the forearm revealed slight thickening of the cortical portion of the ulna. A roentgenogram taken after the injection of iodized poppy seed oil 40 per cent into the sinuses showed extensive tracts in the arm, some of which communicated with each other.

Pus from the sinuses contained many double-contoured, round bodies, some of which were full of endospores. The organism grown on Sabouraud's medium revealed the characteristic features of Coccidioides immitis.

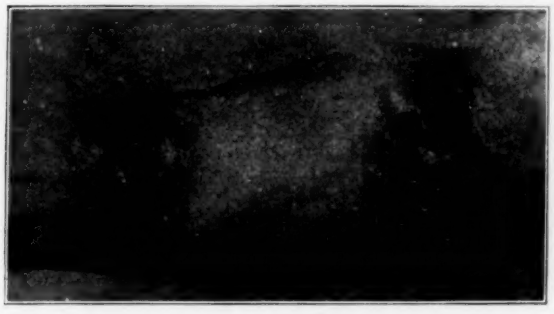

Fig. 1.—Coccidioidal granuloma, showing the infiltrated orifices of the sinuses.

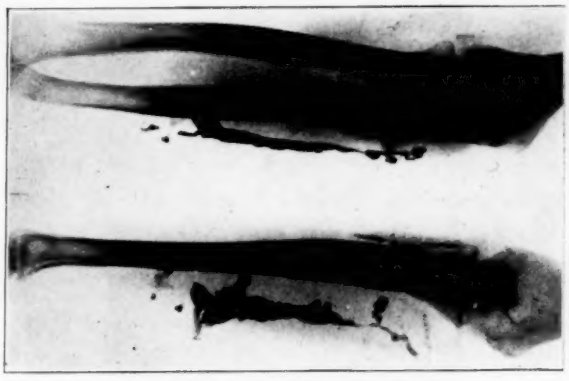

Fig. 2.—A roentgenogram taken following the injection of iodized poppy seed oil 40 per cent. Some of the sinuses had healed when this picture was taken, and injections could be made into only a few.

Treatment.—The patient was first treated with intravenous injections of sodium iodide, 60 Gm. daily. This caused a noticeable but slow improvement. Later the treatment suggested by Jacobson was tried; the colloidal copper was given at intervals of three days, and coccidioidin, which was supplied by the Hooper Foundation of the University of California, was given at similar intervals. The patient did not respond to the treatment. Daily injections of tincture of iodine were made into the sinuses, a modification of Ball's treatment being used. There was a gradual improvement with this treatment. The greatest improvement, however.

occurred when intravenous injections of colloidal iodine, 10 cc. every two days, and injections of tincture of iodine into the sinuses, daily, were given. During six weeks of this treatment all of the sinuses except two small ones healed. These two were opened, cauterized with phenol and allowed to granulate. Tincture of

Fig. 3.—High power photomicrograph (enlarged) of a coccidioidal body immediately after rupture, showing the scattered spores.

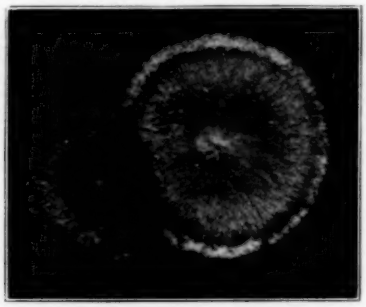

Fig. 4.—Two week old double colony of Coccidioides immitis on Sabouraud's medium.

iodine was then applied once or twice daily until the lesions completely healed. Subsequently, a small sinus that had healed again became active, and responded to the same treatment. Toward the latter part of the treatment the colloidal iodine was given intramuscularly, as there had been phlebitis with the other method. During the healing of the extensive sinuses and again after the two

lesions were cauterized and had begun to heal, diffuse swelling of the forearm developed, which gradually disappeared. The swelling appeared to be a lymph stasis rather than an infiltration. It will be necessary to observe the patient for some time before it can be determined that the disease is cured; the improvement with this treatment, however, has been so marked that I believe the method is worthy of further trial. Another patient with coccidioidal infection whom I saw more recently in the orthopedic service of the El Paso City-County Hospital in consultation with Dr. Frank Goodwin also improved with this treatment, but left the hospital following insufficient treatment and disappeared from observation.

Histopathology.—Biopsy of an infiltration at the edge of a coccidioidal sinus revealed a histopathologic condition closely resembling tuberculosis, which took the form of a granulomatous infiltration of the cutis consisting of lymphocytes, new connective tissue cells, a few polymorphonuclear leukocytes and epithelioid, plasma and giant cells. There were circumscribed areas in the midst of the infiltrate which had broken down and formed abscesses. Some of the giant cells throughout the cutis contained round double-contoured bodies with a granular protoplasm, and, in a few instances, endospores. There was no budding of these cells, as is found in blastomycosis. Most of the giant cells contained cystlike vacuoles which were presumably the former sites of parasitic cells which had been dislodged in the preparation of the sections. The entire cutis was edematous and showed a marked increase in vascularity. The changes in the epidermis were principally those occasioned by edema, the basal layer in places approaching disorganization. In some places there was moderate acanthosis; in others, a flattening of the rête from the pressure of the infiltrate below. There was no evidence of intra-epidermal abscesses in this case.

Rixford and Gilchrist [1] and Zeisler [10] reported cases in which intra-epidermal abscesses giving much the same histologic picture as blastomycosis were present. Chipman and Templeton [6] called attention to the absence of such abscesses in coccidioidal granuloma as a factor of differentiation between these two diseases. The histopathologic condition in the case herein reported, therefore, agrees with that in the case described by the latter authors. In order to determine whether or not intra-epidermal abscesses can be produced in this manner, I attempted by inoculation of superficial scarifications to produce a superficial type of lesion in the skin of guinea-pigs. Although I tried this superficial inoculation several times, I was unable to produce any type of lesion.

MYCOLOGY

Coccidioides as found in the pus is a round or oval, double-contoured body like the blastomycete, except that some coccidioides contain endospores and they do not multiply by budding.

On artificial mediums the organism grows as a mold, appearing on Sabouraud's medium within three or four days as a small, shiny, flat, grayish disk. By the end of a week small white spicules, composed of closely packed mycelium, appear on the surface. Later the entire sur-

10. Zeisler, E. P.: Chronic Coccidioidal Dermatitis, Arch. Dermat. & Syph. **25**:52 (Jan.) 1932.

face becomes somewhat downy with this mycelial growth. At first nothing is found in the culture microscopically except septate mycelium. By the end of a week there are club-shaped swellings (*raquettes*) along the course of the mycelial threads, and some of the threads appear as chains of chlamydospores. The chains increase in number as the colony grows older. The growth becomes brownish with age, finally staining the entire medium dark brown.

IMMUNOLOGIC STUDIES

An intradermal test with 0.1 cc. of coccidioidin, obtained through the courtesy of the California State Department of Health, gave a definitely positive reaction within twenty-four hours. A similar test with blasto-

Fig. 5.—Photomicrograph of a two week old culture, showing chains of chlamydospores.

mycin which Dr. H. J. Templeton obtained in Vienna gave a negative reaction, as did the broth used as a control. A patient with cutaneous blastomycosis whom I was treating at the time gave a negative reaction to coccidioidin and a positive reaction to blastomycin. These reactions speak for the specificity of the tests.

A strongly positive complement-fixation reaction was obtained with the blood serum, the coccidioidin from California being used as an antigen. Davis [11] and Chipman and Templeton [6] reported positive complement-fixation reactions in cases of coccidioidal granuloma.

We were less fortunate with our precipitation tests. We were unable to cause precipitation in the serum of the patient discussed

11. Davis, D.: Coccidioidal Granuloma, Arch. Dermat. & Syph. **9**:577 (May) 1924.

with either plain or cholesterolized antigen. Cooke,[12] and Chipman and Templeton [6] observed precipitation in their cases.

CONTAGION

Transmission of coccidioidal granuloma from person to person apparently does not take place readily. Ophüls [2] was unable to inoculate new lesions into the sound skin of patients suffering from the disease. The spores found in the pus quickly succumb on drying and are probably not capable of causing infection unless they find an immediate and satisfactory lodging place in an abrasion or on a mucous membrane. In order to determine the resistance of the spores to drying, I made smears of pus from the coccidioidal sinuses and allowed them to dry in sterile petri dishes. Plantings were made on Sabouraud's medium from the fresh pus and from the drying smear at intervals of from five to fifteen minutes for the first hour; then at the end of two, three, fourteen and thirty-six hours and, finally, one week from the time of obtaining the pus. This experiment was repeated in part (at intervals up to one hour) several times. There was never any difficulty in obtaining a growth of the fungus from the fresh pus, but no growth was ever obtained after drying the pus in the air for even five minutes.

It is probable that infection takes place more readily by means of culture-laden material, such as vegetable matter, which may support a growth of the fungus and may be inhaled or inoculated into an abrasion.

SUMMARY

A case of coccidioidal granuloma is reported which apparently originated in the district about El Paso, a section in which the disease has not heretofore been reported.

A new form of therapy, which in this case had a markedly beneficial effect in arresting the disease, is discussed. Colloidal iodine is injected intravenously or intramuscularly, and instillations of tincture of iodine are made into the sinuses.

The low degree of contagion is explained by cultural experiments which show that the organism found in the pus quickly succumbs when it is dried in the air.

929 First National Bank Building.

12. Cooke, J. V.: Immunity Tests in Coccidioidal Granuloma, Arch. Int. Med. **15**:479 (March) 1915.

JUVENILE ELASTOMA

FRED D. WEIDMAN, M.D.
PHILADELPHIA
AND
NELSON PAUL ANDERSON, M.D.
SAMUEL AYRES, JR., M.D.
LOS ANGELES

We have classified the congenital abnormality of the elastic tissue reported here as juvenile elastoma. The rarity of the condition (we have been unable to find in the literature any description of a condition identical with it) prompts this report.

REPORT OF CASE

History.—M. W., aged 5½ years, white, first seen on Dec. 10, 1930, was referred by Dr. Henry Dietrich for a cutaneous condition which had been present for two or three years. There were no symptoms, and the past history was unimportant except that the child had suffered from repeated attacks of tonsillitis up to two years before, and during this same period (i. e., from 6 months to 3 years of age) she also suffered from recurrent pyelitis. The parents and one brother, aged 16, have entirely normal skins.

Examination.—The trunk, buttocks and lateral and anterior aspects of the thighs presented numerous discrete, pea-sized, flesh-colored to slightly yellow, doughy, rather flat nodules. In places, as over the right side of the middle portion of the abdomen, right buttock and lateral aspect of the left thigh, the nodular lesions conglomerated to form areas varying in size from that of a silver dollar to that of a palm (fig. 1). One of the areas had a slight pink cast to it, while the others varied from a flesh tone to ivory with a touch of yellow. They had a rather firm doughy to somewhat "rubbery" feel. The child was red-headed and somewhat freckled. Nowhere on the body was there any suggestion of café au lait spots or other pigmented areas suggestive of Recklinghausen's disease. There were not any lesions on the face, neck or hands.

Histologic Observations.—Sections from a large lesion on the left thigh were taken for biopsy, which revealed the following:

There was nothing outstandingly abnormal about the epidermis except slight hyperplasia of the basal cells, as indicated by a moderate elongation of the nuclei in some places, together with crowding.

The general architecture of the corium was normal; nothing abnormal could be made out in the sweat glands or the hair follicles. The normal broad bandlike

form of the collagen bundles was lost, however; only in a few places, more particularly in the deepest parts of the corium, were these at all well represented. There was substituted a mass of shorter or larger segments of narrow collagen bundles; some were wavy and had parallel sides similar to the large, swollen bundles of hyperplasia of the elastic tissue. Finer examination of the serpentine or vermicular strands disclosed a relatively hyaloid structure which supported the impression that, if not actually elastic tissue, the collagen bundles definitely inclined in that direction.

Sections stained by Weigert's differential stain for elastic tissue supported these impressions. Some of the segments, that is, the ones with the more collagenous form, stained reddish-violet, while the narrower ones were black. At the same

Fig. 1.—Grouped nodular lesions to the right of the umbilicus.

time, the associated degeneration of elastic tissue (which is usually seen in elastoses of the skin) was indicated by the presence of lumps and fragments of black material.

Summary.—Widespread, probably congenital vice of connective tissue formation is presented in a child of 6 years. Perhaps this is a good example of a congenital hamartomatous effect—a mechanism which has been invoked by Kaufmann-Wolf for the explanation of at least some of the abnormalities of the elastic tissue in the skin. One of us (F. W.) has raised the question whether these might be analogous to those other congenital (actual or potential) abnormalities of connective tissue construction which are of the order of Recklinghausen's disease.

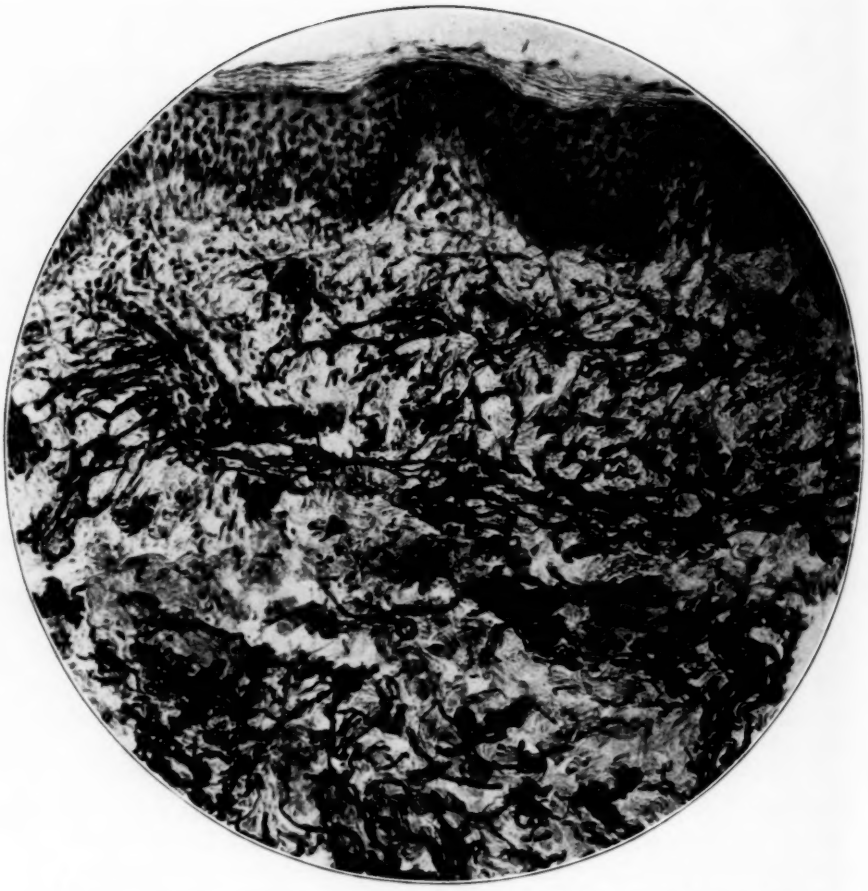

Fig. 2.—Photomicrograph showing details of the elastosis. The fibers are not nearly as wavy as normal. Weigert preparation.

Fig. 3.—Photomicrograph illustrating the depth of the elastosis, i. e., its extension even below the level of sweat glands. Weigert preparation.

COMMENT

The clinical picture with the hundred or more pea-sized and larger yellowish doughy to "rubbery" nodules is unique in our experience. Our first diagnosis was that of an unusual type of xanthoma. When the histologic sections were seen, however, this diagnosis was no longer tenable.

In an article entitled "The Pathology of the Yellowing Dermatoses," one of us [1] summarized the situation of degeneration of the elastic tissue in the following manner:

> Fatty degenerative changes are most conspicuous as they affect the elastic and the collagenous tissue of the corium, and at once the problem arises as to which of these two is concerned in a given dermatosis. Is this a collagenosis or an elastosis? There is a large and involved literature concerning the interrelationship of elastic and white fibrous tissue even in its normal anatomic relations. This antedates dermatologic workers; the mechanism by which connective tissue fibers come to appear (embryologically, for instance) between the primitive spindle cells of fibrous tissue, whether originally intercellular or intracellular, has never been decided. As it stands, I feel that the problem is one for the modern anatomist and physiologist to decide, and not even for an erudite histopathologist like Unna to clarify, for it is uncertain that the two forms are fixed morphologically, even in adult life. This much, however, is known, that under conditions of degeneration such as occur in colloid degeneration of the skin, forms morphologically those of both elastic fibers and collagen bundles are frequently affected by the same retrogressive circumstances, and that under these circumstances elastic fibers appear to take on to a greater or less extent the morphology of collagen bundles and vice versa. That is, transitional expressions between the two constantly obtrude themselves on the observer, thwarting any attempt to classify the condition as an "elastosis" or a "collagenosis."

Kissmeyer and With,[2] in their comprehensive article on the pathologic changes of the elastic tissues of the skin, did not record any case similar to ours. They distinguished the following main types of pathologic change, noting that in all types except the last the degeneration of the elastic tissue occurs particularly on such parts of the skin (face, forehead, neck and backs of the hands) as are continually exposed to the elements:

1. Diffuse senile degeneration.

2. Presenile degeneration in scars from trauma or burns, after a transplantation process and after granulation processes. Colloid milium is approximate to this group.

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1. Weidman, F. D.: The Pathology of the Yellowing Dermatoses, Arch. Dermat. & Syph. **24**:954 (Dec.) 1931.

2. Kissmeyer, A., and With, C.: Clinical and Histological Studies on the Pathological Changes in the Elastic Tissue of the Skin, Brit. J. Dermat. **34**:175 and 221, 1922.

3. Pseudoxanthoma elasticum, a condition no doubt generally arising on an hereditary basis and most frequently associated with the large flexural surfaces of the body.

4. The small elastoma seen now and then in tuberculosis and syphilitic lupoids which presumably arises on a basis of acute degeneration of the original elastic tissue occasioned by inflammation and as a further development of the degeneration of the normal elastic tissue which is found more or less pronounced in chronic granulation tissue.

The first type, namely, diffuse senile degeneration, the senile elastosis of Weidman, does not enter into the case under discussion. The age of the patient, and the absolute freedom of the face, neck and backs of the hands from any lesions is sufficient to dismiss this group.

The second and fourth types are removed from discussion by the absence of any previous scars from trauma, burns or any granulation process. As regards colloid milium, there is no resemblance either clinically or histologically between our case and those of Labadie,[3] Jager,[4] Ketron,[5] Trimble,[6] Hartzell,[7] Gilchrist [8] and others reported under the designation of colloid degeneration of the skin. In our case the exposed surfaces were not involved; no thick, glairy material could be expressed from the lesions, and the histologic appearance was entirely unlike that either described or pictured under the name of colloid degeneration of the skin. The only similarity seems to be in the yellowish appearance of the lesions and the rubber-like consistency.

The distinction from pseudoxanthoma elasticum which seemingly is easily made on both clinical and histologic grounds is not made without difficulty. Throne and Goodman's [9] case of pseudoxanthoma elasticum does not appear to cover the present condition, nor do any of the cases mentioned by them in their thorough review of the literature. Clinically, the two conditions do not resemble one another in any way except for the yellow color. In our case there were not any lesions on the face, neck or hands, nor was there any predilection for the body folds (axillae, cubital and popliteal fossae or groins). Nevertheless, one cannot be dogmatic, and it may well be that when our patient reaches maturity

3. Labadie, J. H.: Colloid Degeneration of the Skin, Arch. Dermat. & Syph. **16**:156 (Aug.) 1927.

4. Jager, T.: So-Called Colloid Degeneration of the Skin, Arch. Dermat. & Syph. **12**:629 (Nov.) 1925.

5. Ketron, L. W.: A Case of Colloid Degeneration of the Skin with an Unusual Histological Feature, Bull. Johns Hopkins. **29**:163 (July) 1918.

6. Trimble, W. B.: Colloid Milium, J. Cutan. Dis. **37**:410 (June) 1919.

7. Hartzell, M. B.: Colloid Degeneration of the Skin with Report of a Case of So-Called Colloid Milium, J. Cutan. Dis. **32**:683, 1914.

8. Gilchrist, T. C.: Colloid or Hyaline Degeneration of the Skin, Arch. Dermat. & Syph. **1**:106 (Jan.) 1920.

9. Throne, B., and Goodman, H.: Pseudoxanthoma Elasticum, Arch. Dermat. & Syph. **4**:419 (Sept.) 1921.

and adult life, she will present a picture indistinguishable from pseudoxanthoma elasticum. If such is the case, the early age at which this condition presented itself and the lack of any antecedent inflammation certainly point to a nevoid origin. Indeed, it is in point to recall that Arzt [10] specifically used the term "hamartoma" [11] when discussing the pathologic process of pseudoxanthoma elasticum.

The distinct patulous follicles and the involvement of the neck which were present in Kissmeyer and With's first case of pseudoxanthoma elasticum were lacking in ours. Their other two cases occurred in a sister and brother of the first patient, denoting a strong familial tendency. This had been noted in other reported cases, although Bloch's [12] case in a girl of 18 years of age was without any familial history.

Dubendorfer's [13] case in a boy, aged 7, appears to resemble our case more than any other that we have been able to find recorded in the literature. On a palm-sized area in the left upper gluteal region were found dull, distinctly yellow, sharply defined and fairly elevated stripes and spots with here and there an indication of a network. Histologically, in the middle and deepest layers of the cutis, there were irregularly rolled-up elastic fibers and bands.

Under the title of "naevus sclerodermicus thoracis," With and Kissmeyer [14] presented a case at the meeting of the Danish Dermatological Society on Oct. 2, 1918, and later at the Fourth Scandinavian Dermatological Congress in Copenhagen, June, 1919. Clinically, the condition in their patient had a certain likeness to pseudoxanthoma elasticum but histologically not. Later Lewandowsky,[15] according to With and Kissmeyer, described the abnormality as a new disease and named it "naevus elasticus." He examined four patients, and found that a characteristic histologic feature was a lack of elastic tissue in the upper part of the corium or small bundles of broken and twined elastic fibers there. With and Kissmeyer,[14] however, preferred to call the condition "dystrophia elastica follicularis thoracis." It seems suffi-

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10. Arzt: On the Pathology of the Elastic Tissue of the Skin, Arch. f. Dermat. u. Syph. **118**:465 (Sept.) 1913; abstr., J. Cutan. Dis. **33**:227 (March) 1915.

11. Albrect, E., cited by Weidman.[1]

12. Bloch, B.: Demonstration eines Falles von Pseudoxanthoma elasticum, Cor.-Bl. f. schweiz. Aerzte **45**:346, 1915; quoted by Kissmeyer and With.[2]

13. Dubendorfer, Emma: Ueber Pseudoxanthoma elasticum und kolloide Degeneration in Narben, Arch. f. Dermat. u. Syph. **64**:175, 1903; quoted by Kissmeyer and With.[2]

14. With, C., and Kissmeyer, A.: Follicular Elastic Dystrophy of the Thoracic Region Possibly Hereditary, Ann. de dermat. et syph. **6**:169 (April) 1922.

15. Lewandowsky, F.: Ueber einen eigentümlichen Naevus der Brustgegend, Arch. f. Dermat. u. Syph. **131**:90, 1921.

cient to say that the resemblance of this case to ours is neither clinical nor microscopic.

Regarding the choice of names, we have used the term "juvenile elastoma." We have done this first because we believe this condition to be a nevus and second because of the apparent primary involvement of the elastic tissue. It perhaps might better be designated as a nevus elasticus, the latter having been proposed by Bloch and Juliusberg for pseudoxanthoma elasticum. With and Kissmeyer, however, do not consider the term "elastoma" appropriate in those cases of pseudoxanthoma elasticum because "it is not a question of a proliferative tumor but of a degenerative product." Whether they would consider elastoma as a proper designation in our case, we are unable to say. In the case of senile elastosis, Schmidt assumed that it is only a question of increased density of the elastin on account of the atrophy of the connective tissue, but With and Kissmeyer suggested the possibility of "primarily proliferative processes in the connective tissue and consequent degenerative elastin changes."

There seems to be no reason why, since we have congenital disturbances of blood vessels, epithelium, nerve sheaths, and so forth, that the connective tissue of the corium should be exempt. This is all the more the case where it is such a short step between the collagen bundle and the elastic fiber; both are under the influence of the same metabolic center—that is, the spindle cell.

SUMMARY

1. A rare type of an apparent congenital abnormality involving the elastic tissue is reported, in which localized aggregations of the elastic tissue hyperplasia occur.

2. For this condition the term "juvenile elastoma" is suggested.

3. The pertinent literature and relevant cases have been reviewed.

The following additional reference may be noted, but all of the articles of Kissmeyer and With, Weidman, and Throne and Goodman contain extensive bibliographies on most phases of the elastic tissue problem: Dubreuilh, W.: Diffuse Facial Elastoma, Bull. Soc. franç de dermat. et syph. **6**:247, 1921; abstr., Arch. Dermat. & Syph. **5**:367 (March) 1922.

CLINICAL VARIANTS OF FAMILIAR DISEASES OF THE SKIN

PHENOLPHTHALEIN ERUPTION; PITYRIASIS ROSEA; LICHEN PLANUS; PARAPSORIASIS

LEONARD F. WEBER, M.D.
AND
HERBERT RATTNER, M.D.
CHICAGO

The following are cases of familiar diseases of the skin whose interest lies in the fact that they presented clinical pictures varying from the usual descriptions given in textbooks.

REPORT OF CASES

The first case is one of a large bullous eruption of the palms due to ingestion of phenolphthalein.

Bullous eruption following the ingestion of phenolphthalein.

CASE 1.—A man, aged 46, was seen at intervals during 1928 and 1929 for lichen planus. In 1930, he had an acute eruption on the dorsa of the hands and on the abdomen which clinically was erythema multiforme; it was found to be due to a laxative preparation containing phenolphthalein. He discontinued the use of the drug, and the eruption disappeared. In October, 1932, he was again seen with an eruption on the hands and the abdomen that had developed after the ingestion of a proprietary drug containing phenolphthalein. On the abdomen and the dorsa of the hands there were several intensely erythematous patches, on some of which bullae were developing; on the palms there were two large, tense, purplish bullae, which were surrounded by distinct zones of erythema. All of the lesions itched intensely. Other than that, the patient complained of no discomfort. The eruption involuted in a few days.

Since 1917, when Abramowitz first called attention to the entity, it has been recognized that the ingestion of phenolphthalein by susceptible persons may cause cutaneous diseases. Three varieties of eruptions caused by phenolphthalein have been described: (1) bullous and erosive lesions in the mouth and on the genitals, (2) generalized erythematous eruptions, resembling outbreaks of measles, scarlet fever or erythema multiforme, and (3) fixed eruptions which in the main are persistent smooth macules or plaques which vary in size up to several centimeters in diameter. They have poorly defined borders; there may be slight infiltration and scaliness, and the lesions are slate-colored or violaceous. Later the color changes by the addition of brownish tints, and there may be stippled depigmentations in the central part of the patch, giving the whole a polychromatic appearance.

The fixed variety is the eruption that is most frequently encountered. Intense bullous reactions such as our patient presented are rare, and it is even more unusual that the most intense reactions took place in the palms, where the epidermis is thick.

The second case is one of pityriasis rosea with lesions on the palms and soles.

CASE 2.—A man, aged 36, was seen in February, 1932, with a florid eruption typical of pityriasis rosea. On the trunk, extremities and neck, he presented pink, oval, scaly macular and papular lesions, the long axes of which were parallel with the cleavage lines of the body. On the palms and soles there were numerous closely arranged, deep-seated vesicular lesions on inflamed bases which were similar to those that occur in vesicular ringworm infection. Three possibilities were considered in the diagnosis: (1) dermatophytosis of the hands and feet, complicated by a generalized dermatophytid that resembled pityriasis rosea; (2) dermatophytosis of the hands and feet and a concomitant pityriasis rosea, and (3) pityriasis rosea with vesicular lesions on the palms and soles. We were unable to recover fungi from the lesions on the hands and the feet. The patient was treated with protective applications, and the entire eruption went through the typical course of pityriasis rosea. We concluded, therefore, that the diagnosis was pityriasis rosea with vesicular lesions on the palms.

We had never encountered a similar case, although we were aware that such cases had been reported. A review of the available literature disclosed that in rare cases in which pityriasis rosea involves the hands or feet it may take any of several forms. There may be: (1) discrete, scaly, red plaques; (2) livid red, slightly elevated and infiltrated maculopapules with tiny vesicles on the thin-skinned portions of the fingers and toes; (3) scaly red patches on the inner surfaces of the palms and soles, among which vesicles are intermingled; (4) closely arranged, dyshidrotic, so-called sago grain vesicles, such as our patient presented, and (5) universal redness and scaliness of the palms and soles.

The third case is one of lichen planus limited to the soles.

Case 3.—A woman, aged 20, had an itching eruption on the feet which had been present for thirteen months. The eruption had never involved other areas of the body except at the onset, when there was a single transitory lesion on one wrist. Apparently because of the location of the lesions she was thought to have epidermophytosis, and she had been ineffectually treated with various topical remedies. On the plantar surface of each foot there were about ten discrete flat-topped papules; most of them were imperfectly rounded, but several were angular. They were purplish and had shiny tops; some were scaly, and a few were raised slightly from the surrounding surface of the skin. There were no lesions on the buccal mucous membranes or elsewhere on the body. The Wassermann and Kahn reactions of the blood were negative. Microscopic examination of a lesion showed the typical picture of lichen planus.

The patient was treated by the administration of x-rays to the lesions and injections of a preparation containing arsenic and mercury. Curiously, after the first treatment a generalized outbreak of typical lesions of lichen planus developed on the trunk and the extremities. The entire eruption finally involuted, leaving faintly pigmented spots.

It is unusual for lichen planus to involve the palms or the soles, and, we believe, it is a clinical curiosity for it first to involve them alone. When these areas are affected, the condition is usually part of a generalized eruption—rarely are lesions limited to the palms or the soles.

The fourth case is one of lichenoid parapsoriasis with lesions on the palms.

Case 4.—A woman, aged 26, was seen in August, 1929, with an eruption made up of scaly macules and lichenoid papules. The eruption had first appeared one year previously, and at that time a physician, believing she had syphilis, gave her specific treatment for four months. Exfoliative dermatitis and nephritis then developed, for which she was confined to the hospital for nine weeks. When we saw her three months later, she had a bilateral and symmetrical eruption on the trunk, the extremities and the palms and soles. The lesions were discrete macules and lichenoid papules, some of which were slightly indurated and covered by a dry, thick, firmly attached scale. There were no subjective symptoms. The Wassermann and Kahn reactions of the blood were negative on several occasions. The morphologic characteristics of the eruption, the results of the general physical examination and the history did not indicate syphilis. When she was later presented before the Chicago Dermatological Society as having lichenoid parapsoriasis, the members agreed with the diagnosis, and all of them considered the presence of lesions on the palms and soles to be unique. The patient has been observed at intervals during the past three years. The serologic reactions have been consistently negative and the eruption has remained unchanged.

7 West Madison Street.

JOSEPH JACOB PLENK
1738?-1807

JOHN E. LANE, M.D.
NEW HAVEN, CONN.

During the period of his activity there must have been few names known to as many physicians and medical students in all parts of the world as was that of Joseph Jacob Plenk. He wrote books on most of the important subjects of medicine. The majority of the books passed through many editions and were translated into many foreign languages. With one or two exceptions they were originally written in Latin. German translations followed immediately. Many were translated into English, French and Italian; some into Dutch, Spanish and Portuguese. One was translated into Russian, one into Lithuanian, and several were translated into Japanese, one twice.

The subjects of his books include: "A Method of Administering Mercury"; "A System of Tumors"; "Obstetrics"; "Surgery"; "Materia Chirurgica or Treatment of External Disorders"; "Anatomy"; "Diseases of the Skin"; "Ophthalmology"; "Diseases of the Teeth and Gums"; "Venereal Diseases"; "Legal Medicine"; "Dietetics"; "Toxicology"; "Hygrology, or Chemico-Physiological Doctrine of the Fluids of the Human Body"; "Physiology and Pathology of Plants"; "Prescription Writing"; "Chemistry"; "Pharmaceutical Chemistry"; "Medico-Surgical Pharmacology"; "Diseases of Children," and "Gynecology."

Like most authors with a large amount of literary baggage, he was able to transmit little of it to following generations. The only mention Garrison makes of his work is that "the outstanding books and classifications of skin diseases in the eighteenth century were those of Plenk and Lorry," adding the fact that in the Viennese group of physicians was "the dermatologist Joseph Jacob von Plenk, who followed the method of Linnaeus in classifying diseases of the skin."

Haeser refers to him as the "author of an immense number of writings, on all branches of medicine, which are for the most part mediocre."

Not one of his books found its way into the Bibliotheca Osleriana, and there are none in the Yale University Library.

I suppose that I first heard of Plenk when I learned the primary lesions of the skin. From that time I had a curiosity to know something about him, but for years I was unable to overcome the inertia which a glimpse of his accessible bibliography gave me, until

at last I have made an attempt to compile a complete bibliography of his writings and to find out what his contemporaries and immediate successors thought of him.

I have been exasperated many times with the difficulties encountered, and am dissatisfied with the results, for I have found little about the man, and the bibliography is incomplete, numerous editions and dates are missing, and it is undoubtedly inaccurate in some instances. I have checked items that I have been able to find in half a dozen large libraries, but in compiling the list I have had to depend also on the catalogs of

JOSEPH JACOB PLENK
1738?–1807

dealers in old books, on incomplete titles, and on contemporary statements of dates, often contradictory. In one instance I have not been able to determine positively the original from which a translation was made. This was because several of the works have similar titles and it was impossible for me to see both the original and the translation. I am presenting what I have found, incomplete and inaccurate as it is, because it gives information collected from not easily accessible sources which has not previously been gathered together.[1]

1. Dr. S. C. Harvey supplied references to criticisms of Plenk's surgical works; Prof. Albert F. Hill, botanic references; Prof. C. W. Mendell, translations from Latin, and Dr. E. E. Yoshii, translations from Japanese.

LIFE OF PLENK

Plenk was born in Vienna on Nov. 28, 1738.[2] He was for a short time professor of anatomy, surgery and obstetrics at Basle (1770). In 1771 he became professor of the same subjects at the newly established university of Tyrnau in Hungary. In 1783 he became professor of chemistry and botany at the Medicochirurgical Military Academy in Vienna and director of the field apothecaries. This academy was also called Joseph's Academy or the Josephinum. It was founded by Joseph II of Austria, and its formal opening was on Nov. 7, 1785, a year after the opening of the Allgemeines Krankenhaus, on Aug. 16, 1784. Plenk was also perpetual secretary of the institution. In 1798 he was raised to the Hungarian nobility and called Joseph von Plenk. His name is also frequently written Plenck. He died in Vienna on Aug. 24, 1807, having survived the previous report of his death in July, 1785, by twenty-two years.[3]

BOOK ON MERCURY

Plenk first attracted attention in 1766 by his writings on the administration of mercury in syphilis. In his first book, "A New and Easy Method of giving Mercury to those Afflicted with the Venereal Disease," he describes several experiments for the preparation of a more suitable form of mercury, resulting in his adoption of a mixture of the metal with acacia. This mixture was later given the name mercurius gummosus plenkii. Plenk thought that "a true affinity exists between mercury, animal mucus and gum arabic; and this is the reason why, when once united, they remain so firmly attached to one another." Saunders, in his remarks in the English translation of this book,[4] says: "I have always been much disposed to suspect the accuracy of the reasoning by Mr. Plenk in the chemical part of his work." And after describing some experiments of his own, he adds: "I may confidently assert . . . that gum arabic has no affinity with mercury."

Plenk's chief object was to obtain a preparation that would cure syphilis without salivating the patient, and he gives his results, which were favorable. The preparation seems to have been used extensively, though Plenk's hope that it would not cause salivation was not realized. Saunders says "that there is no means we can employ to obviate the salivary power of mercury in particular circumstances, but by such additions as will destroy its anti-venereal effects," [5] but "though Mr. Plenk's chemical reasoning is founded on erroneous principles, yet it

2. Der Biograph, vol. 7, p. 501. Other biographers give the date as 1732.
3. Meusel, supp. 1, p. 495.
4. Page 138.
5. Page 155.

must be allowed that his method of giving mercury is attended with many advantages; salivation, though sometimes produced by it, is less violent, and more easily conquered; the powers of digestion are not in any degree impaired." [5]

Chapman [6] says: "That the sublimate, assisted by the sarsaparilla, will often cure without salivating, and that in very bad cases, is at present universally acknowledged. Mr. Plenk, however, thinks his method on many accounts preferable to it. How far it is so, I have not taken upon me to determine: but so far as it is intended to prevent the mercury from salivating, we have Dr. Saunder's testimony that it is not absolutely to be relied on."

Hirschel [7] does not speak so favorably. He quotes Munnik as having used Plenk's preparation in Holland and in Paris, where it always produced salivation. "Mr. Munnik says somewhat ironically that Mr. Plenk's solution cures without salivation only in Austria, but not in France and Holland." Hirschel himself adds that it cures without salivation "only the wife of the *clarissimi Herzogs* and the patient of Mr. Martmann in Frankfort."

A fair statement of what was probably the case is made by Chapman: [8] "How it comes about that mercury combined with this mucilage is less apt to salivate than when administered in any other way, is perhaps no very easy matter to determine. From a great number of practical observations, this however appears to be the case."

Fisher [9] says that mercurius gummosus was used chiefly in pill form and became very popular.

Plenk in this work made a modest attempt to improve the treatment of syphilis which should not be ridiculed. This book, Jourdain says, was the chief work that made him known.[10]

OBSTETRICS

Plenk's "Obstetrics," published in 1768, is one of the few of his works that was published first in German. The Latin edition did not appear until 1781. There were six German and two Italian editions, and one French edition. The German version is a book of 452 pages, the longest of his medical works that I have seen. Haeser [11] says that it was used in almost all the universities. He also states that in 1768 Plenk had spoken of the induction of premature labor as a means of lessening the

6. Chapman, preface, p. xxi.
7. Hirschel, preface, p. xxxiv.
8. Chapman, p. 316.
9. Fisher, p. 223.
10. Dictionnaire des sciences médicales; Biographie médicale, p. 444.
11. Haeser, vol. 2, pp. 723 and 734.

necessity for decapitation and cesarean section. The subject had previously been discussed at a meeting of obstetricians in London in 1756.

Meunier [12] says of this work:

> Plenk . . . has left us . . . a very exact picture of the state of obstetrics at the end of the Eighteenth Century. . . . He cites among celebrated accoucheurs: Van Horn, Moriceau, de Lamotte, Deventer, Smellie, Levret, Puzos, Crantz, Fried, Roederer, Saxtorph, Stein, Wrisberg, Deleurye, Sigault; and it is on their teachings and practice that he based his lectures to the Hungarian students, lectures which he had published. . . . He used Stein's pelvimeter. He diagnosed the time of pregnancy by the height of the fundus. . . . Dystocia is studied at length.

Meunier reviews his treatment of placenta praevia, hydramnios, extra-uterine pregnancy and the various obstetrical operations.

SURGERY

Plenk wrote several books on surgical subjects. One of them, the "Pharmacia chirurgica," went through three Latin, three Italian and three Spanish editions, and a German, a French and a Dutch edition, and is probably the surgical work that was translated into Japanese. In his "Sammlung" Plenk proposed "a new theory to explain the mechanism of air wounds," i. e., wounds of internal structures without injury to the skin. It was believed that bullets caused wounds without touching the body. One theory was that the air near the bullet was compressed and caused the injury. Plenk's theory was that the injury was due to the liberation of an electrical charge which had been acquired by the bullet in its course.[13]

Of his numerous books on surgical subjects, Fischer says: [14]

> Plenk has no significance as a surgeon and his surgical works are without scientific value. He was, however, an adroit writer who had the gift of getting hold of the kernel of the science in a way which, for the most part, was complete and well arranged, even though with somewhat exaggerated brevity. To this circumstance he owes it that his books, especially in Austria, were the favorites for elementary instruction and that they lived through many editions.

When Plenk published his "Sammlung," he found, according to Fischer: [14]

> . . . that in order to save many surgical observations from loss a man was necessary who had enough courage in his patriotic breast to interest himself in them, judgment enough to select them, and self denial enough to present them against the judgment of critics.

12. Meunier, p. 355.
13. Helferich, in Puschmann, vol. 3, p. 5; in Billroth, p. 55.
14. Fischer, p. 222.

The lion roars well, but it did no good, the contents are meager. All his writings were based on the low educational level of the German surgeons. What a low level this was Plenk shows by the fact that he does not describe surgical methods in a technical way but describes them only by their taste, smell and outward appearance because he was afraid that if he used any other method he would "overburden his pupils." It must be acknowledged that he gave currency to many new, and up to that time little known surgical procedures, especially at a time when among the young surgeons, operations overshadowed everything else and they did not bother themselves with the rest of surgery.[16]

DERMATOLOGY

The book which has kept Plenk's name from entire oblivion is his "Doctrina de morbis cutaneis," published in 1776. It is a book of 124 pages, one of the smallest of his small books, and it ran through few editions in comparison with some of his other works. There were two Latin, two German and two Italian editions. In character and arrangement, which will be referred to later, it differed little from his other works. That the volume has been remembered is due to the fact that it presents a classification of skin diseases based on the appearance of the lesions rather than on their location on the body (head, chest, etc.), as in the work of his predecessors, Mercurialis and Turner. Plenk's purpose is expressed in the preface, which follows in full:

The great number and variety of diseases which afflict the skin, the obscurity of the causes from which they develop and the difficulty as well as the diverse methods of curing that arise thence have made this science of medicine and surgery most difficult and hardly understandable for beginners. Finally, there are few writers whom they may approach for consultation; of these some have touched on this type of disease only fleetingly although it has been common in every age; others, by a rambling and inconsistent use of terms, have rendered the diagnosis and the method of treatment uncertain.

These are the facts that impelled me to strive to reduce to a system the vast and unclassified mass of these diseases. This small volume which I have put together for the use of my hearers contains a hundred and fifteen types of cutaneous diseases; chronic diseases I have carefully described, but I have added only the differentiation and diagnosis of eruptions that come with fevers, how they are distinguished from each other and from similar affections; for the treatment of these eruptions that accompany fevers lies solely in the cure of the fever from which they proceed, which pertains to another branch of pathology.

Much, I gratefully admit, I owe to the very celebrated men who have recently established the generic systems of diseases: Sauvage, Linnaeus, Vogel, Macbride, Cullen, Sagarus, whose systems I have often used, with the richest profit, and yet I do not think I have undertaken a superfluous work, if you will consider what I have added, corrected and clarified.

That this book with the classification it presented was saved from oblivion is due to the fact that Willan saw its usefulness, adopted it in

part and made a living thing of it. Bateman states the part that Plenk's classification played in Willan's scheme as follows:

> The arrangement of Plenk is founded upon the same principles as that of Dr. Willan, namely, upon the external appearances of the eruptions; but, in filling up the scheme, he has deviated widely from the strict laws of classification, which naturalists have established. Nine of his fourteen classes very nearly correspond with the eight orders of Dr. Willan. It seems probable, indeed, that Dr. Willan was indebted to this work of Professor Plenk for the groundwork of his classification; since his definitions, as well as his terms, accord accurately with those of the Hungarian nosologist.[15]

Perhaps the most satisfactory way of showing Plenk's position is to quote the opinions of some of his distinguished successors. Chiarugi says that as diseases of the skin were "scorned or at least neglected by the majority of physicians, the less severe ones as of little moment, and the more serious ones regarded with the greatest horror, with the fear of contagion often present because of the appearance of nauseating filth and foul odor with which they invest the body, it is no wonder that they were poorly and confusedly observed and consequently as poorly described."[16] The indefatigable Plenk wished to clarify the classifications, so inexact and so little related, which had been made by many nosologists of the past century.[17]

Cazenave says:

> Plenk . . . rejecting all topographical distinction, classed diseases of the skin by their external characteristics; but with the true anatomical lesions he arranged the products of inflammation, and among the fourteen classes he adopted, are seen distinct sections based on scabs and ulcers, ranged with those constituted of vesicles and pustules, as if these ulcers and scabs are not consecutive symptoms, and succeed pustules, etc.; the consequences were inevitable, that of making two or three different affections from the same disease, according as it existed in a pustular, crustaceous or ulcerous state.
>
> Willan adopted this ground-work, and established a classification, which, if not exempt from errors, is at least, in the actual condition of our knowledge, that which presents the most clearness, precision, and exactness in the study of diseases of the skin.[18]

Rayer says:

> Abandoning the quite futile classification of diseases of the skin according to their location on the head or on other regions; paying no attention to the etiological division proposed by Turner and developed by Lorry, Plenk chose the external characteristics of skin diseases as the basis of his classification. This was the first step in the anatomical study of these changes. . . . This classification, greatly superior to all those which had been previously published, was, however, not exempt

15. Bateman, preface, p. xi.
16. Chiarugi, preface, p. vii.
17. Chiarugi, preface, p. x.
18. Cazenave, p. 9.

from some serious imperfections. Crusts and ulcers are never primary changes; they always follow pustules, vesicles, bullae, tubercles, and sometimes squamous diseases. The study of crusts cannot be detached from the alterations which produce them. . . . Nevertheless the original idea of this classification was good. Willan took it as the basis of his work. . . .

If the classifications of Plenk and of Willan . . . had the unquestioned advantage of making the description more exact, we may perhaps criticize them for having separated diseases which, by their nature, should have been grouped (syphilides), and of having joined others which should have been attached to different groups (leprosy and ichthyosis, measles and purpura hemorrhagica).[19]

Kaposi says:

In spite of the large amount of material and the classical character of this treatise, the work of Lorry only slightly advanced the progress of dermatology with the general medical public. For it, the book was too learned and the extracts that this public could have made from it would have caused too much trouble.

On this account, the little work of our compatriot, Plenk, which appeared in Vienna in 1776, had an incomparably greater popularity. In it are found all the diseases of the skin in the shape and appearance in which they are seen by the eye, designated as natural products completely developed: *maculae, pustulae, vesiculae, bullae, papulae, crustae.* He divides them into fourteen classes and then separates these classes into twenty varieties which in appearance makes the system extremely difficult to follow. But everything relating to the classes and their subdivisions was defined in a concise and convincing manner very much as in the system of Linnaeus, in which genera, species and varieties of plants are arranged in a definite way, according to the nature and number of the stamens. It is in this way that Plenk's Doctrina de Morbis Cutaneis, like a catechism, impresses one by its concise and convenient axioms as an apparently sure guide which could not be better adapted for familiarizing one with diseases of the skin.

Yet, as soon as these diseases were observed again at the bedside of the patient, it was easy to be convinced that they did not manifest themselves in forms as fixed as the definitions of Plenk indicated, but showed very variable pathological phenomena and consequently deserved being placed, some in one class, some in another. Thus, an affection which showed papules today, after a little time, appeared in the form of vesicles, and later still under the aspect of bullae, or ulcers. Besides, it is to be regretted that Plenk, confining himself solely to the external form, and not to the essential pathological phenomena, should have joined in the same class processes which were entirely different, like scabies and small pox, acute exanthemata, lenticular macules, leprosy and goose flesh, to say nothing of many pathological monstrosities like syphilitic scabies and other similar things.

But the exposition of these precise ideas on the primary lesions of diseases of the skin was nevertheless progress of real value for the future of dermatological studies, in that it suppressed in a definite manner and degree the arbitrariness of the terminology, while facilitating discussion.[20]

Bloch says:

Rosenbaum, not without reason, calls Plenk the real founder of the systemizing tendency in dermatopathology although his . . . system shows more formal

19. Rayer, vol. 1, introduction, p. xi.
20. Kaposi, vol. 1, p. 11.

than real relationship. . . . It was, in von Bärensprung's apt expression, more a system of the products than of the processes of disease.[21]

Riehl says:

Plenk's "Doctrina de Morbis Cutaneis" for a long time passed as a fundamental work, in spite of the fact that it brought together, based on external appearances only, a wholly forced collection of diseases widely differing in their pathology.[22]

Sabouraud says:

The beginning of modern dermatology is usually dated from the last years of the Eighteenth Century. The honor of having founded it is usually accorded especially to four teachers, Plenk, Lorry, Willan and Alibert. If the study which I am making were a chronological table, I should present them and their work here in the order in which I have just named them. . . . But the history which I am undertaking is not a chronological table and, if we consider the spirit of the work of these masters rather than the date of their publication, it is easy to see that the two French authors belong to ancient schools which died with them, while the whole dermatology which is to follow originates with Plenk, Willan and Bateman. Just as Plenk begets Willan, and Willan begets Bateman, Bateman, in his turn, begets Biett and the school of the French Willanists. Thus starting with Plenk, the genealogy of the Nineteenth Century dermatologists is clear and without interruption and no break is found. It should be studied in chronological order which, in itself, is instructive.[23]

Dohi says:

This work of Plenk's peculiarly influenced the future great development of dermatology, through its application by Willan, the genius of dermatology.[24]

VENEREAL DISEASES

Among the works of Plenk, all popular in their time, the "Doctrina de morbis venereis" was perhaps the most widely known. I have found references to three Latin, three German, three Italian, three Dutch and two Japanese editions, and one Portuguese and one Russian edition. The second German edition, of which I have a copy, is a book of 224 pages.

Bloch credits Stoll, Plenk and Nils Rosen von Rosenstein with calling attention to syphilis hereditaria tarda.[25] Proksch gives him credit for carefully describing chancre of the nipple and syphilis of the glands of the breast.[26]

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21. Bloch, in Puschmann, vol. 3, p. 412.
22. Riehl, in Riecke, p. 2.
23. Sabouraud, p. 17.
24. Dohi, p. 93.
25. Bloch, in Puschmann, vol. 3, p. 451. (See Plenk: Lehre von den venerischen Krankheiten, ed. 2, p. 190.)
26. Proksch, vol. 2, p. 438. (See Plenk: Lehre von den venerischen Krankheiten, ed. 2, p. 156).

While Plenk describes most methods employed in the treatment of syphilis, Proksch thinks that he is rather one-sided in his recommendation of mercurius gummosus plenkii, which is still known.

Dohi says:

> The second edition of the book was translated into German by Wasserberg and into Dutch by Nolst. In 1820 Rikkei Sugita translated the Dutch translation into Japanese and entitled the book Baisō-shinsho, i. e. "New book on syphilis." Kōgyū Yoshiio, the teacher of Hashimoto, published Plenk, Baisō-hen. It probably appeared earlier than Sugita's translation. Both of them apparently used the same book. Yoshiio, however, translated the first part only, as far as the chapter on skin tumors (Hautgeschwüre) [i. e., to page 98. J. E. L.].[27]

Fujikawa says that through this book occidental syphilology was initiated in Japan.

OTHER MEDICAL WORKS

It is unnecessary to consider in detail Plenk's other medical works. His "Anatomy" went through four Latin editions and one Japanese edition; his "de morbis oculorum," three Latin, two German and two Italian editions and a Japanese edition; his "Diseases of the Teeth and Gums," two Latin and three Italian editions. His "Toxicology" was translated into German, Italian and Spanish, and his "Hygrology," into German, English and French; his "Children's Diseases" was published in Latin and German the year of his death, and was translated into Japanese. A selection from his surgical works was published in Portuguese in 1804. His last work, "Doctrina de morbis sexus feminei," appeared the year after his death and was translated into Japanese. In addition, he published several papers in medical journals.

PLENK'S INFLUENCE ON JAPANESE MEDICINE

Fujikawa studied Plenk's influence in Japan, and concluded that his work was, directly and indirectly, largely responsible for the development of Japanese medicine.

The first Europeans who came to Japan were the Portuguese, who were followed by the Spanish, English, Irish and Dutch. For two hundred years reading of European books was prohibited, but by about the middle of the eighteenth century it became the fashion to translate Dutch books, so that the principles of western medicine could be learned directly from books and not by conversation alone. The works of Plenk were most popular. His books on surgery, ophthalmology, gynecology and pediatrics were the first occidental works on these subjects available in Japanese.

27. Dohi, p. 94.

There is no doubt that, although the book on surgery was very simple and described only essentials, the medical profession benefited greatly by this initial contact with occidental surgery.

The translator of the book on ophthalmology, Sugita Kincho, explained that it was "a work never before attempted" and that he had to devise many Japanese names for the diseases described. Japanese ophthalmology was greatly influenced by Plenk. The same thing may be said of his influence on anatomy and on pediatrics. His "Venereal Diseases" has been referred to.

It may be that their simplicity and conciseness, which suited the taste of the scholars of Japan at that time, accounted for the wide use of Plenk's works in the various branches of medicine.

Plenk's influence in Japan was not confined to the widespread use of his books. It was greatly increased by the fact that one of his own pupils, Batei, a Dutch physician, came to Nagasaki, and that the great pioneer Japanese physician, Niimiya Ryotei, studied medicine under him, thus directly implanting Plenk's teaching in Japan.

After an epidemic in the prefecture of Nagasaki, Niimiya Ryotei, assisted by Batei, edited two volumes on occidental epidemic diseases, under the title of "Taisei Eki Ron," or "Treatise on the Occidental Epidemic Diseases," by making extracts from various European theses on typhoid.

In 1823, Yoshiwo Eimin, an official interpreter of Nagasaki, wrote in the preface to this book:

> In the fall of 1817, I visited the Dutch doctor, Batei, with Dr. Niimiya Ryotei. Dr. Batei had learned his medicine from Plenk, the great physician of his country, and he excelled specially in internal medicine. At this time, following the famine of Nagasaki prefecture, many people suffered from an epidemic, causing death at every door. Its violence was beyond description; the symptoms generally resembled those of "epidemic diarrhea" (typhoid fever), and all treatments were futile. The diseased suffered from headache and delirium, frequent diarrhea and haemorrhages; varieties of complications beyond all expectations; all physicians were bewildered; all methods and technique exhausted, and they all wondered what sort of disease it could be. Batei on listening to the statement, struck his hands and said, "this is exactly what we call in our country the nervous fever." He then discussed everything in detail and showed the identity of the signs and symptoms. . . .
>
> This is exactly what Batei diagnosticated our Nagasaki epidemic, as the typhoid fever, and we may say that this was the very first that our physicians learned about the identity of his "epidemic diarrhea" to the occidental typhoid.

Niimiya Ryotei established a school at Kyoto and used Plenk's books on surgery, chemistry, pediatrics and anatomy as textbooks and reference books in teaching occidental medicine to his pupils.

Fujikawa says that it is not necessary to examine the question of whether there was any originality in Plenk's translated works and con-

cludes by saying, "Translation or retailing, if done in sincerity in each line, the merit is immutable through all generations under the sun, and it is esteemed whenever and wherever it may be." [28]

PLENK AS BOTANIST

I shall now leave Plenk the physician and turn to Plenk the botanist. Unfortunately, I have been unable to see any of his botanic works, and a search for information about them would take me too far afield, so I can describe them only by the titles. In 1788, he published the first volume of an eight volume botanic atlas, the last volume of which he did not live to complete. This was edited after his death by J. L. Kerndl. The title is "Icones plantarum medicinalium, secundum systema Linnaei digestarum, cum enumeratione virium et usus medici, chirurgici atque diaetetici." It has been said that this work was of little value and that most of the illustrations are copies.

In 1794, he published in Latin a "Physiology and Pathology of Plants." This was translated into German and published in Vienna in 1795 and in Cologne in 1818. An Italian edition appeared in Venice in 1799, and a French one in Paris in 1802.

In 1796, he published the "Elements of Botanical Terminology and of the Sexual System of Plants," which was translated into German in 1798 and into Spanish in 1802.

A plant has been named in honor of Plenk the botanist.[29] The name was given by Reissek to "Plenkia papulnea" of the family of the Celastraceae, the bittersweet family.[30]

ESTIMATE OF PLENK

Burbach [31] describes Plenk's appearance as exactly that of the military surgeon of the old school. An anonymous writer who attended his lectures in 1793 says:

> Among the physicians in Vienna who deserve attention on account of their learning Plenk and a few others at the Military Academy stand out. Plenk is distinguished by his industry and range of knowledge, a range which is unusual in a man of his age, in the field of the contemporary progress of knowledge. The hours I spent listening to him I count among the most pleasant and profitable spent in Vienna.[32]

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28. This is a summary of Fujikawa's paper, from the translation made for me by Dr. Edward E. Yoshii of New York. In order to make this article and that of Dohi more easily available, I have given a photostatic copy of each with Dr. Yoshii's English translation to the Library of the New York Academy of Medicine.

29. Enciclopedia universal, ilustrada europeo-americana.

30. Bentham and Hooker, vol. 1, p. 388. (This work also refers to Martius.)

31. Cited by Neuberger, p. 148.

32. Quoted by Neuberger, p. 157.

Of his method of work, Gräffer says:

> No man in all Vienna had so many new blue brochures. All the walls of a large room were full of them. In Weihburggasse, in an old house near the Queen of Austria, he sat in the middle of this room and wrote all day and, based on these little blue brochures, new books appeared, all of them written with talent and ease, definite purpose and judgment, in good language, Latin and German. He finally gave up practically all practice. In his literary work he was assisted by Eyerel, one of the most learned physicians in the world, but a poor devil, a cynic, whose like it would be hard to find.[33]

In attempting to make a just estimate of Plenk and his work I am sure all will agree with Chiarugi in calling him "l'infatigabil Giuseppe Plenk." We can also agree with the statement in his brief obituary that "he recast most industriously in separate publications part of the sciences which he lectured on." [34]

Richter, in a review of Plenk's books on the eye, on the teeth and on venereal disease, gives an estimate that needs no change:

> Books of the sort indicated, which contain the substance of a whole science demand tireless industry, wide reading and the hand of a master who knows the science in its whole extent and who knows how to distinguish every thing that is essential and to arrange it in order. In the sciences indicated by the titles, I know of no author who has presented the subjects with so complete and well arranged brevity. He has, besides, utilized everything that recent workers have observed and discovered. From this point of view these books are of value and service not only for beginners but also for the skilled and experienced physician who usually devotes himself to only one branch of his art. For such a one it is pleasant and profitable to cast a glance over the whole field of his science, for, otherwise, with time, many a locality, many a field, into which his practice does not take him, will become unknown and strange.[35]

In other words, these books were excellent quiz compends for the beginner, and yearbooks for the old doctor who did not care to read too much or too often.

It is only fair to consider the character of the students who listened to his lectures, and for whom many of his books were written. "The Josephinum was founded at Vienna, in charge of Brambilla, for instruction in Military Medicine. . . . The pupils . . . were usually barbers, or sons of poor officials, but these institutions undoubtedly did much to elevate the status of surgery. . . ." [36]

With such targets it would have been impossible to aim very high and hit anything. Plenk aimed at the target, and every shot hit the bull's eye.

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33. Quoted by Neuberger, p. 96.
34. Der Biograph, vol. 7, p. 501.
35. Richter, vol. 5, p. 467.
36. Garrison, p. 396.

His experiments with mercury leading to the introduction of his mercurius gummosus are the first original ideas evident in his medical writings, and they made him known. His classification of diseases of the skin is his other original contribution. All of his medical textbooks follow one plan and take one form. His mind seems to have immediately placed every fact that came to his attention in the proper pigeonhole, in the proper order, so that when he started to write, each idea or fact appeared and was set down in the proper place, making a perfectly symmetrical and harmonious plan.

This completeness, clearness and simplicity made his works ideal for the introduction of European medicine to Japanese physicians, who at that time would have been bewildered by more scholarly and theoretical treatises.

The chief point of interest is the way in which Plenk became the originator of the modern classification of diseases of the skin. I believe that it was largely—not wholly—a lucky chance. His "De morbis cutaneis" is cast in the same mold as his other books. I imagine that when he sat down to write it, he found that the previous divisions made, those according to the regions of the body, would furnish only a few of the necessary pigeonholes, and that his methodical mind could not contemplate with equanimity the lack of order that would prevail with such a system. And then came the inspiration—the thought that a classification based on the numerous types of lesions would fill the want and make everything orderly. The rest was easy. With the infinite variety of visible manifestations of diseases of the skin, there would be no necessity of leaving any pigeonholes empty, and even the smallest ones he had used in his "Anatomy." He was an admirer and student of Linnaeus, and it is likely that the works of Linnaeus had made him a classifier.

The idea of using the anatomic lesions as the basis of the classification was a brilliant one for which Plenk should have due credit. But that is all the credit that can be claimed for him in that line, for a great dermatologist he was not. Aside from the method of classification, there is not a new idea in his book, and his observation—if indeed the book was chiefly based on observation—was not superior to that of his predecessors. Willan, the keen observer, careful student, trained physician and brilliant dermatologist, saw the use that could be made of the classification, modified it, adopted it and kept it alive.

BOOKS PUBLISHED BY PLENK

1766

1. Schreiben an Herrn Rumpelt von der Wirksamkeit des Quecksilbers und Schierlings, Vienna, 1766.

2. Methodus nova et facilis argentum vivum aegris venerea labe infectis exhibendi. Accedit hypothesis nova de actione metalli hujus in vias salivales, Vienna, Heredis F. Bernardi, 1766.

Ed. 2, 1769.

Ed. 4, 1777.

German Edition: Neue und leichte Art den mit der Lustseuche angesteckten Kranken das Quecksilber zu geben. Nebst einem Versuche die Wirkung dieses Metalles auf die Speichelwege zu eklären, Vienna, Gräffer, 1767.

Ed. 2, 1769.

Ed. 3, 1771.

Ed. 4, 1778.

English Edition: A New and Easy Method of Giving Mercury to Those Afflicted with the Venereal Disease: To Which is Annexed a New Theory of the Action of This Metal on the Salivary Glands. Translated from the Latin by W. Saunders, London, E. & C. Dilly, 1767.

Ed. 2, Same Title. To Which is Prefixed a Table Exhibiting at One View All the Preparations of Mercury, with an Appendix of Remarks on Mr. Plenck, Together with Some Experiments and Observations Which Ascertain with More Accuracy a Steady and Uniform Method of Giving His Medicine, and a Short and Easy Method of Preparing the Mercurius Calcinatus, London, E. & C. Dilly, 1768.

Ed. 3, 1772.

French Edition: Méthode nouvelle d'administrer le vif-argent, Traduit par M. Laflice, Nancy, 1779.

Russian Edition: Translated by Nestor Makeimourtsch Ambodek, 1790.

1767

3. Novum systema tumorum, quo hi morbi in sua genera et species rediguntur, Vienna, Heredis F. Bernardi, 1767.

German Edition: Neues Lehrgebäude von Geschwülsten, worinnen dieselben in ihre Geschlechter und Gattungen gebracht wurden. Aus dem Lateinischen übersetzt, Dresden and Leipzig, M. Gröll, 1769.

Ed. 2, 1776.

1768

4. Translated: Pott: Abhandlung von der Mastdarmfistel. Aus dem Englischen übersetzt, 1768. (This is Pott, Pervical: Remarks on the Disease Commonly Called a Fistula in Ano, London, L. Hawes, 1765; ed. 2, 1767; ed. 3, 1771.)

5. Anfangsgründe der Geburtshülfe (two parts in one volume), Vienna, Gräffer, 1768.

Ed. 2, Vienna, 1774.

Ed. 3, Vienna, 1781.

Ed. 5, Vienna, A. Blumauer, 1795.

Ed. 6, Vienna, Camesina, 1803.

Latin Edition: Elemanta artis obstetriciae, Vienna, Gräffer, 1781.

Italian Edition: Elementi dell'arte ostetrizia, Venice, F. di N. Pezzana, 1782.

Ed. 2, Venice, 1785.

French Edition: Élémens de l'art des accouchements. Traduit par J. Pitt, Lyons, Dombey, 1792.

1769

6. Translated: Flemyng, M.: Abhandlung von der Natur . . . und Heilung der übermässigen Fettigkeit des Körpers. Aus dem Englischen übersetzt von J. J. Plenk, 1769. (This is Flemyng, Malcolm: A Discourse on the Nature,

Causes, and Cure of Corpulency, Illustrated by a Remarkable Case. Read Before the Royal Society, November, 1757, and Now First Published, London, L. Davis & C. Reymers, 1760.)

7. Sammlung von Beobachtungen über einige Gegenstände der Wundarzneikunst, Vienna, vol. 1, 1769; vol. 2, 1770.

Ed. 4, 1775.

1771

8. Materia chirurgica, oder Lehre von den Wirkungen der in der Wundarzney gebraeuchlichen Heilmittel, Vienna, 1771.

New Edition, 1780.

Italian Edition: Materia chirurgica, ovvero, dottrina de'medicamenti soliti usarsi alla cura de' mali esterni, ed. 2, Venice, 1788.

1774

9. Lehrsätze der praktischen Wundarzneywissenschaft. Zum Gebrauch seiner Zuhörer, Vienna, Gräffer, 1774.

Ed. 2, 1780.

New edition, Frankfurt & Leipzig, 1793.

Ed. 3, Vienna, C. F. Wappler, 1799.

10. Aphorismi de cognoscendis et curandis morbis chiruricis, before 1776(?).

Dutch Edition: Heelkundige Ziektenkunde. Uit het Latijn en Hoogduitsch vertaald, Utrecht, Van Paddenburg, 1799. (These two have not been identified as the same work.)

1775

11. Primae lineae anatomes in usum praelectionum, Vienna, Gräffer, 1775.

Ed. 2, 1777.

Ed. 3, 1780.

Ed. 4, 1795.

German Edition: Amriss der Zergleiderungskunst des menschlichen Leibes, Vienna.

Japanese Edition: Translated by Niimiya Ryotei of Tokio. (Ryotei interpreted it in an eight volume system of anatomy [Kaitai Soku].)

12. Selectus materiae chirurgicae, cui additur elenchus instrumentorum et fasciarum chirurgicarum, Vienna, Gräffer, 1775.

German Edition: Auswahl der chirurgischen Arzneymittel nebst einem Verzeichniss der Werkzeuge und Bandagen, Vienna, 1775.

Other editions, 1777 and 1795.

13. Pharmacia chirurgia seu doctrina de medicamentis praeparatis ac compositis quae ad curandos morbos externos adhiberi solent, Vienna, Gräffer, 1775.

Ed. 2, 1777.

Ed. 3, Vienna, Gräffer, 1791.

German Edition: Chirurgische Pharmacie, oder Lehre von den zubereiteten und zusammengesetzten Arzneymitteln. Aus dem Lateinischen übersetzt von J. P. G. Pflug, Copenhagen and Leipzig, Prost, 1776.

Ed. 3, 1786.

Italian Edition: Farmacia chirurgica, ovvero dottrina de' medicamenti preparati e composti che si sogliono adoperare nella cura de' morbi esterni, Venice, F. de Pezzana, 1781.

Ed. 2, 1786.

Ed. 3, Venice, 1786.

French Edition: Pharmacologie chirurgicale, ou science des médicamens externes et internes, requis pour guérir les maladies chirurgicales, suivie d'un

traité de pharmacie relative à la préparation et à la composition des médicamens, Paris, T. Barrois, 1786.

New edition, Vienna, 1790.

Spanish Edition: Farmacologia chirurgica o ciencia de medicamentos externos e internos precisos para curar las enfermedades de cirugia, con un tratado de farmacia relativo à la preparacion y composicion de los medicamentos. Traducido al castellano de la ultima edition y aumendado, Madrid, P. J. Pereyra, 1798.

Ed. 3. Traducido, corregido y aumentado por. . . . Antonio Lavedan, Madrid, D. T. Villapando, 1819.

Dutch Edition: Heelkundige artzeny winkel of chirurgyns apotheek. Vervattende alle proefde en hedendaagsch, gebruikelyke bereide en samengestelde heelmiddelen. Ter geneezing van uitwendige ziekten. Uit het Latyn vertaald . . . door A. Schráge, Amsterdam, A. J. Van Toll, 1779.

1776

14. Doctrina de morbis cutaneis. Qua hi morbi in suas classes, genera et species rediguntur, Vienna, Gräffer, 1776.

Ed. 2, Vienna, Gräffer, 1783.

German Edition: Lehrsätze von den Krankheiten der Haut, nach ihren Klassen, Geschlechtern und Gattungen eingetheilt. Aus dem Lateinischen übersetzt, Warsaw, Grölli, 1777.

Ed. 2. Lehre von den Hautkrankheiten. Aus dem Lateinischen übersetzt und mit einigen Zusätzen vermehrt von F. August von Wasserberg, Vienna, Gräffer, 1789.

Italian Edition: De' morbi cutanei, giusto le loro classi, generi e specie, Venice, F. di N. Pezzana, 1781.

Another edition, Venice, 1785.

15. Compendium institutionum chirurgicarum pro tironibus chirurgiae, Vienna, Gräffer, 1776.

Ed. 2, Vienna, Gräffer, 1780.

New edition, 1797.

German Edition: Anfangsgründe der chirurgischen Vorbereitswissenschaften für angehende Wundärzte, Vienna, Gräffer, 1777.

Ed. 2, 1788.

Ed. 3, 1790.

Ed. 4, 1794.

Ed. 5, 1801.

New edition, Pest, 1783.

Ed. 6, 1813.

Ed. 7, 1822.

Italian Edition: Compendio d'instituzione chirurgiche, ed. 3, Venice, 1795.

Japanese Edition: Yoka Shimsen, translated by Sugita Kiucho, 1830.

1777

16. Doctrina de morbis oculorum, Vienna, Gräffer, 1777.

Ed. 3, Louvain, J. M. van Overbeke, 1796.

German Edition: Lehre von den Augenkrankheiten. Ubersetzt von F. von Wasserberg, Vienna, Gräffer, 1778.

Ed. 2, Vienna, Gräffer, 1788.

Italian Edition: Dottrina de' morbi degli occhi, Venice, F. di N. Pezzana, 1781.

Ed. 2, 1786.

Ed. 3, 1798.

Japanese Edition: Ganka Shinso (New Book on Ophthalmology). Translated by Sugita Shinso, 1815.

1778

17. Doctrina de morbis dentium ac gingivarum, Vienna, Gräffer, 1778.

New edition, Leipzig, Nauck, 1796.

Italian Edition: De' morbi de' denti e delle gengive dottrina, ed. 2, Venice, F. di N. Pezzana, 1786.

Ed. 3, Venice, Giuseppe Orlandelli, 1798.

German Edition: Lehre von der Krankheiten der Zähne und des Zahnfleisches, Vienna, 1778.

1779

18. Doctrina de morbis venereis, Vienna, Gräffer, 1779.

Ed. 2, Vienna, Gräffer, 1787.

Another edition, Louvain, J. M. Van Overbeke, 1797.

German Edition: Lehre von den venerischen Krankheiten. Aus dem Lateinischen übersetz durch F. von Wasserberg, Vienna, Gräffer, 1780.

Ed. 2, Vienna, Gräffer, 1787.

Ed. 3, Leipzig, Nauck, 1793; also Vienna, 1793.

Italian Edition: De' morbi venerei dottrina, Venice, F. de Pezzana, 1785.

Another edition, Venice, 1782.

Another edition, 1793.

Portuguese Edition: Doutrina das enfermedades venereas, translated by J. H. de Faria, Lisbon, 1786.

Russian Edition: Translated into Russian by Hestor Macksimowitch, 1790.

Lithuanian Edition: Translated by Maximow Ambodek, St. Petersburg, 1793.

Dutch Edition: Verhandeling over de venusziekten. Uit het Latijn vertaeld, en met vele aenteekeningen en bijvoegselen, benevens eene korte verhandeling over den oorsprong der venusziekte, volgens het gevoelen van den Heer Sanches, vermeerdert, door Lambertus Nolst, ed. 3, Dordrecht, de Leeuwenkrap, 1792.

Japanese Edition: Baisō-hen. Translated by Kōgyū Yoshio, about 1820.

Another edition, Baisō-shinsho. (Neues Buch über Syphilis.) Translated by Rikkëi Sugita, 1820. (This was translated from the Dutch edition, as was probably Yoshio's translation. Yoshio's translation was probably made first, but the date has not been ascertained.)

1781

19. Elementa medicinae et chirurgiae forensis, Vienna, Gräffer, 1781.

German Edition: Anfangsgründe der gerichtlichen Arzneywissenschaft und Wundarzneykunst, 1782.

Ed. 3, 1794.

Ed. 4, Vienna, Wappler & Beck, 1802.

1785

20. Bromotologia, seu doctrina de esculentis et potulentis, Vienna, Gräffer, 1785.

German Edition: Bromotologie, oder Lehre von den Speisen und Getränken, Vienna, Gräffer, 1785.

21. Toxicologia seu doctrina de venenis et antidotis, Vienna, Gräffer, 1785.

Another edition, 1802.

German Edition: Toxikologie oder Lehre von den Giften und Gegengiften. Aus dem Lateinischen, Vienna, 1785.

Italian Edition: Tossicologia, ossia doctrina intorno i veleni ed i loro antidota. Traddotta dall' originale latino in italiano, Venice, G. Orlandelli, 1789.

Spanish Edition: Toxicologia, o doctrina de venenos y sus antidotos, Traducido del latin al castellano, de la ultima edicion, y aumentato por D. Antonio Lavedan, Madrid, F. Villapando, 1816.

1788

22. Icones plantarum medicinalium, secundum systema Linnaei digestarum, cum enumeratione virium et usus medici, chirurgici atque diaetetici, Vienna, 1788-1812. (Volume 8 was edited after Plenk's death by J. L. Kerndl.)

1794

23. Hygrologia corporis humani, sivi doctrina chemico-physiologica de humoribus in corpore humano contentis, Vienna, A. Blumauer, 1794.

Another edition, Louvain, J. van Overbeke, 1797.

German Edition: Hygrologie des menschlichen Körpers, oder physiologisch-chemische Betrachtungen der flüssigen Bestandtheile des menschlichen Körpers. Aus dem Lateinischen übersetz und mit einigen Anmerkungen begleitet von Wolf Davidson, Berlin, E. Felisch, 1796.

English Edition: The Hygrology or Chemico-Physiological Doctrine of the Fluids of the Human Body. Translated from the Latin by Robert Hooper, London, T. Boosey, 1797.

French Edition: Hygrologie ou exposé chimico-physiologique des humeurs contenues dans le corps humain. Traduit du Latin par F. Pitt, Lyons and Paris, 1800.

24. Physiologia et pathologia plantarum, Vienna, Blumauer, 1794.

German Edition: Vienna, Wappler, 1795.

Another edition, Cologne, Imhoff, 1818.

French Edition: Paris, Barrau, 1802.

Italian Edition: Venice, 1799.

1796

25. Elementa terminologiae botanicae ac systematis sexualis plantarum, Vienna, 1796.

German Edition: Anfangsgründe der botanischen Terminologie und des Geschlechtssystem der Pflanzen, Vienna, Wappler, 1798.

Spanish Edition: Elementos de la nomenclatura botanica, Barcelona, Jordi, Roca y Gaspar, 1802.

26. Umriss der Zergliederungskunst des menschlichen Leibes. Aus dem Lateinischen von F. X. von Wasserberg, new edition, 1796.

1799

27. Elementa pharmaco-catagraphologiae seu doctrina de praescriptione formularum medicinalium, Vienna, 1799.

German Edition: Anfangsgründe der Pharmaco-Katagraphologie, oder der Lehr Arzneyformeln zu verschreiben, Vienna, Wappler & Beck, 1799.

1801

28. Elementa chymiae, Vienna, 1801.

German Edition: Anfangsgründe der Chemie, Vienna, 1801.

1802.

29. Elementa chymiae pharmaceuticae, Vienna, 1802.

German Edition: Anfangsgründe der pharmaceutischen Chemie, oder Lehre von der Bereitigung und Zusammensetzung der Arzneymittel, Vienna, 1803.

1804

30. Pharmacologia medico-chirurgica specialis, sive doctrina de viribus medicamentorum interne et externe in curatione morborum adhiberi maxime solitorium, Vienna, 1804.

German Edition: Specielle medizinische-chirurgische Pharmacologie oder Lehre von Kräften der Arzneimittel, Vienna, 1804.

Ed. 2, Vienna, 1816.

31. de Paiva, M. J. H.: Instituiçoes de cirurgia theorica e pratica, que comprehendem a fysiologia, e a pathologia geral e particular, extrahidas do compendio das instituçoes cirurgicas, e dos elementos de cirurgia, e de otras obras do doutor José Jakob Plenck, e notavolmente accrescentadas, ed. 2, Lisbon, A. R. Galhard, 1804. (Selections from Plenk's works.)

1807

32. Doctrina de dognoscendis et curandis morbis infantum, Vienna et Tergesti, J. Geistinger, 1807.

German Edition: Lehre von der Erkenntniss et curandis morbis infantum, Vienna, 1807.

Japanese Edition: Yowyow Seigi (Commentary on the young.) Translated by Horiuchi Sodo, 1943. (An abbreviation of this book.)

A complete translation later by Niimiya Ryomin and Niimiya Ryokaku.

1808

33. Doctrina de morbus sexus feminei, Vienna, J. G. Binz, 1808.

Japanese Edition: Translated by Funabiki Takydo of Kyoto, 1850.

PAPERS PUBLISHED BY PLENK IN JOURNALS *

1. Bemerkungen über den Gebrauch der Zimmettinktur bey Blutstürzen aus der Gebärmutter, Mohrenheims wien. Beytr. z. prakt. Arzneyk, 1781, vol. 1.

2. Bemerkungen über den Gebrauch der Salzsaüre im bösen Kopfgrinde, Mohrenheims wien. Beytr. z. prakt. Arzneyk, 1783, vol. 2.

3. Bemerkung über die Heilung einer 6 monatlichen Heiserkeit, Mohrenheims wien. Beytr. z. prakt. Arzneyk, 1783, vol. 2.

4. Von der Heilung einer Lähmung der untern Gliedmassen, Mohrenheims wien. Beytr. z. prakt. Arzney., 1783, vol. 2.

5. Ueber den Gebrauch der Fieberrinde, des Quecksilbers und des Opiums beym Tetanus von einer Verwundung, Abhandl. d. k. k. med.-chir. Josephs-Acad. z. Wien, 1787, vol. 1.

6. Beobachtungen über die krampfstillende Eigenschaft der Ipecacuanha bey den Konvulsionen der Schwangern und Gebährenden, Abhandl. d. k. k. med.-chir. Josephs-Acad. z. Wien, 1787, vol. 1.

7. Beobachtungen über den Nutzen des mexikanischen Traubenkrautes (Chenopodium ambrosioides, L.) zur Heilung des Veitstanzes, Beob. d. k. k. med.-chir. Josephs-Acad. z. Wien, 1801, vol. 1, no. 5.

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1. Allgemeine deutsche Biographie. Leipzig, Duncker & Humblot, 1875-1912.

2. Bateman, T.: A Practical Synopsis of Cutaneous Diseases, first American edition from the fourth London edition, Philadelphia, Collins & Croft, 1818.

3. Baudot: Exposé des doctrines dermatologiques depuis Plenk, Rev. de méd. franç. et étrang. **2**:584 and 653, 1869.

4. Bentham, G., and Hooker, J. D.: Genera Plantarum, London, Reeve, 1862-1867. (Contains a reference to Martius: Floria brasiliensis, 1861, vol. 11, p. 30.)

* I have seen none of these articles. The titles and references are copied as found in various places.

5. Besnier, E.; Brocq, L., and Jacquet, L.: La pratique dermatologique, Paris, Masson & Cie, 1900-1904.

6. Billroth, T.: Historische Studien über die Beurtheilung und Behandlung der Schusswunden vom fünfzehnten Jahrhundert bis auf die neuste Zeit, Berlin, Reimer, 1859. (There is a recent translation of this work [Rhoads, C. P.: Historical Studies on the Nature and Treatment of Gunshot Wounds from the Fifteenth Century to the Present Time, Yale J. Biol. & Med. **4**:1, 120 and 225 (Oct.-Jan.) 1931-1932]).

7. Der Biograph, ed. 2, Halle, Buchhandlungen des Hallischen weisenhauses, 1808, vol. 7, p. 501.

8. Cazenave, A.: A Practical Synopsis of Cutaneous Diseases, translated from the French, Philadelphia, Carey, Lea & Carey, 1829.

9. Chapman, S.: A Treatise on the Venereal Disease, Being Chiefly Designed as a Translation and Abridgment of the Practical Part of Dr. Astruc's Work. Second Edition, to Which Are Added the Improvements with Regard to the Use of the Sarsaparilla, Mezereon, and Sublimate as Also an Account of Mr. Plenk's Method of Cure, London, W. Owen, 1770.

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SUCCESSFUL TREATMENT OF VITILIGO

MILTON H. COHEN, M.D.
YORK, PA.

Modern textbooks are nearly unanimous in asserting that no form of therapy has any effect on vitiligo. Andrews [1] bluntly states: "No treatment has the slightest effect upon leukoderma." Pusey [2] asserts that "treatment is ineffective." Stelwagon [3] questions how far treatment influences the course of the disease and thinks that the outlook for recovery is not encouraging. Sequeira [4] believes that the disease is little influenced by treatment.

In the past several years articles have appeared that offer hope for a cure of vitiligo. Lindsay [5] reported excellent results with the use of gold sodium thiosulphate injected intravenously. Nadel [6] cured a patient by intravenous and oral administration of acridine dyes followed by exposures to ultraviolet rays. He based his treatment on the ability of the acridine dyes to sensitize persons to sunlight. Riviere [7] suggested that ultraviolet rays enlarge the small blood vessels and facilitate the diapedesis of leukocytes and the migration of pigment. He also advised the application of roentgen rays to the liver and spleen with a view to exciting the pigment-forming organs. Quiyum [8] cured a patient in India with intravenous injections of sodium cacodylate. Uhlmann [9] reported satisfactory results following the application of an alcoholic solution of oil of bergamot to the

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5. Lindsay, H. C. L.: Treatment of Leukoderma with Gold Sodium Thiosulphate, Arch. Dermat. & Syph. **20**:22 (July) 1929.

6. Nadel, A.: Intravenous Use of Acridine Dyes in Vitiligo, Acta dermat.-venereol **11**:141 (April) 1930.

7. Riviere, J.: The Curative Treatment of Vitiligo, Urol. & Cutan. Rev. **30**: 84 (Feb.) 1926.

8. Quiyum, M. A.: The Successsful Treatment of "Vitiligo Diffusa" by Injections of Sodium Cacodylate, Indian M. Gaz. **63**:582 (Oct.) 1928.

9. Uhlmann, Erich: Pigmentbildung bei Vitiligo, Med. Klin. **23**:279 (Feb.) 1927.

vitiliginous areas, followed by ultraviolet light irradiation. Bechet [10] presented before the Section on Dermatology and Syphilis of the New York Academy of Medicine a patient whose condition had improved markedly following direct exposure of the lesions to the rays of the sun. Phipps [11] treated an early condition with oil of bergamot prior to the application of ultraviolet rays. Repigmentation occurred but was not maintained. However, when the local treatment was combined with antisyphilitic treatment the vitiligo disappeared; it had not returned after a year's observation. Recently Pillsbury and Kulchar [12] produced striking alterations in the depigmented area in two patients by the intravenous use of gold sodium thiosulphate. Thus it appears that much can be done for this malady, the most favorable results following the application of oil of bergamot to the depigmented areas, irradiation with ultraviolet rays and intravenous injections of gold sodium thiosulphate. The case which I shall now report illustrates the effect of such a therapeutic course.

REPORT OF A CASE

A young woman, aged 19, of Nordic descent, a student, was first seen on June 10, 1931. She complained of extensive white spots on her face, abdomen, hips and arms. The leukoderma had appeared about the time of the onset of the menses, six years before. It involved the extensor surfaces of both hips and spread within a few months to the face and abdomen. In spite of much internal medication and various external applications the lesions had remained stationary. The patient had always been well except for a gastro-intestinal disturbance which had occurred about two years after the appearance of the depigmented areas. She suffered mild abdominal pain and lost twenty pounds (9 Kg.). There were malaise and an excessive amount of flatus for a period of nearly three months. Roentgenographic examination of the gastro-intestinal tract showed no abnormalities. She has been well ever since.

Large depigmented areas were present on the cheeks, chin, abdomen and the extensor surfaces of both thighs, and small patches were seen on both forearms. The patches were generally rounded, and the margins were well defined. There was an increase of pigment surrounding these areas, which faded gradually into the surrounding skin. Physical examination showed no other abnormal condition. The urine and the blood count were normal; three Wassermann tests of the blood gave negative results.

Course and Treatment.—The patient was told to apply a 10 per cent alcoholic solution of oil of bergamot to all the affected areas twice daily. Ultraviolet irradiation with the carbon arc lamp was applied to her face for from three to five minutes twice weekly, and once a week an intravenous injection of gold sodium

10. Bechet, P. E.: Vitiligo Improved with Heliotherapy, Arch. Dermat. & Syph. **21**:507 (March) 1930.

11. Phipps, M.: Cas de vitiligo traité par les rayons ultravioletts après friction à l'essence de bergamote, Bull. Soc. franç. de dermat. et syph. **36**:1605 (Nov.) 1929.

12. Pillsbury, D. M., and Kulchar, G. V.: Gold Dermatitis Limited to Depigmented Skin, Arch. Dermat. & Syph. **27**:36 (Jan.) 1933.

thiosulphate (0.1 Gm.) was given. The effect of this treatment was little less than startling. Within two weeks the areas on the face had begun to coalesce. At each visit the hyperpigmented patches were seen encroaching on the depigmented spots, and in six weeks the face was completely free from any evidence of the disease. The patches on the thighs and abdomen were also lessened but did not show improvement nearly so rapidly as the face, which had received ultraviolet irradiation in addition to the oil of bergamot. She was treated in all for fourteen weeks, during which period she received a total of 1.4 Gm. of gold sodium thiosulphate. The other vitiliginous areas were treated by ultraviolet irradiation several times, with excellent results, but the patient discontinued treatment after her face was freed from the disfigurement. She was seen one year after the last treatment; the vitiliginous areas had not returned. Her face was completely free from any pigmentary disfigurement, and the patches on her thighs and abdomen were greatly improved.

COMMENT

There is no doubt that the treatment was instrumental in relieving this leukoderma of six years' duration. Vitiligo has been known to appear and to disappear following psychic trauma. Trim and Sequeira [13] reported a case in which improvement occurred spontaneously without any particular treatment. However, the sudden change which occurred in my patient's lesions after they had been stationary for so many years must have been caused by the treatment. It is interesting to note that the face, which had been treated by all three agents, improved much more rapidly and completely than the thighs and abdomen, which had received little ultraviolet irradiation.

It is impossible to explain exactly what occurred until the actual method of the formation of pigment is better understood. According to Bruno Bloch's theory of pigmentation, "All pigment is formed in tissue through direct action of di-oxyphenylalanin (dopa), which is found more or less in blood and tissues and which, through action of a ferment (dopa ferment) in certain cells is transferred into pigment in these cells." Why this process was interfered with in this case is not clear. The onset of the disease about the time of the first menses suggests an endocrine origin, but the patient gave no other evidence of endocrine disturbance. Bloch thinks that the ferment of the epidermis in the basal cells disappears in vitiligo. A formation of pigment could take place only in those places where an increase of the ferment action was still possible. Ultraviolet rays are supposed to increase considerably the action of dioxyphenylalanine-oxydase, but it is necessary, as Uhlmann [9] showed, to use an alcoholic solution of an ethereal oil, oil of bergamot giving the best results, in addition to ultraviolet irradiation in order to achieve permanent pigmentation.

The rôle of oil of bergamot in producing the pigmentary disturbance known as Berlock dermatitis was clearly shown by Lane and

13. Trim, E. A., and Sequeira, J. H.: Vitiligo in African: Spontaneous Improvement in Hospital, Brit. J. Dermat. **43**:592 (Nov.) 1931.

Strauss [14] and by Gross and Robinson,[15] but it is not certain whether this is a real dermatitis or a sensitization of the skin of certain persons to the oil.

Bonnet [16] tried the application of oil of bergamot in vitiligo with entirely negative results, but he did not use ultraviolet irradiation or gold sodium thiosulphate. Axmann [17] reported that he was able to produce pigmentation in leukoderma after rubbing in eau de cologne. Perhaps in order to achieve results it is necessary that the person suffering from vitiligo should be sensitive to an ethereal oil, but the results obtained suggest that no case should be regarded as hopeless until these methods have been tried.

The rationale of the use of gold sodium thiosulphate is also rather debatable. Lindsay [5] ascribed its beneficial effects to the counteraction of the excessive photosensitivity which is found in the depigmented areas. However, the equally good results obtained with neoarsphenamine and sodium cacodylate suggest a possible bacterial etiologic factor. Almkvist [18] believed that certain bacterial toxins are often instrumental in bringing about changes in the skin by acting injuriously on the pigmentary processes, with the starting of leukoderma.

In all probability therapeutic agents have various effects, according to the specific etiology of the condition, which seems to differ. In some instances, intravenous injections of gold or treatment with an arsenical or an acridine dye may help, while in others it may be necessary to use ultraviolet irradiation and an alcoholic solution of oil of bergamot; but the combined use of both internal and external therapy appears to offer the best hope for relief.

SUMMARY

Vitiligo should not be considered an incurable disease until adequate treatment has been given intravenously with gold sodium thiosulphate together with the external application of an alcoholic solution of oil of bergamot and ultraviolet rays. A case is reported in which the condition was treated very satisfactorily by such therapy.

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BLASTOMYCETIC DERMATITIS BY LYMPHATIC EXTENSION

HARRY M. ROBINSON, M.D.
BALTIMORE

During the clinical session of the 1931 meeting of the American Dermatological Association, a case of blastomycosis with lesions of a nodular type was presented which brought forth a discussion from several members of the association concerning the mode of extension of the disease and the manner of dissemination of the blastomycetes through the body. Ormsby [1] stated that although he had seen many cases of blastomycosis in which dissemination was by way of the blood, he had never seen a case in which it was conclusively demonstrated that extension had been by the lymph stream. Weidman [2] stated that blood-borne extension is the rule, but he believed that it was possible for the disease to spread through the lymphatics. During the earlier investigations, Montgomery [3] found blastomycetes and changes in the lymph nodes in a systemic case coming to autopsy. Ormsby,[4] also in a systemic case, reported the finding of these organisms in the lymph nodes. Involvement of the lymph nodes was also recorded by Ricketts [5] in some cases, but the absence of involvement of the lymph glands in a great majority of his cases indicated dissemination of the infection generally by the blood, although he thought that in a generalized infection such extension "may take place through the medium of the lymphatic system." Therefore, it may be said in general that although dissemination of blastomycetes is usually by means of the blood, many investigators have accepted the possibility of progressive involvement through the lymphatic system even though no well defined case of this type has been reported, except that of Weidman.[2a] Because of the apparent infrequency of the latter method of extension, the following case is reported.

From the Department of Dermatology, University of Maryland.

1. Ormsby, O. S.: (*a*) Personal communication; (*b*) Discussion on King-Smith, D.; Trow, E. J., and Dixon, H. A.: Blastomycosis, Arch. Dermat. & Syph. **25**:178 (Jan.) 1932.

2. Weidman, F. D.: (*a*) Personal communication; (*b*) Discussion on King-Smith; Trow and Dixon.[1b]

3. Montgomery, F. H.: Report of a Case of Systemic Blastomycosis Including Autopsy and Successful Animal Inoculation, J. Cutan. Dis. **25**:393 (Sept.) 1907.

4. Ormsby, O. S.: Diseases of the Skin, Philadelphia, Lea & Febiger, 1915.

5 Ricketts, H. T.: Oidiomycosis (Blastomycosis) of the Skin and Its Fungi, J. M. Research **6**:533 (Dec.) 1901.

REPORT OF CASE

A Negro, aged 32, a native of North Carolina, had been a resident of Baltimore for the past fifteen years. He had not been out of the immediate vicinity of the city for several years. He was admitted to the dermatologic department of the University of Maryland Hospital, complaining of a "sore leg."

Five years before admission to the clinic he contracted urethritis. He said that he had not had ulcers or other cutaneous manifestations on the genitals. While on his way to work about one year previously, he walked through a field in his bare feet. Shortly afterward he noted a "pimple" on the sole of the right foot, which he pricked with a pin and obtained a small amount of pus. The lesion did not heal but continued to increase in size. During the succeeding six months, five "lumps" appeared on the inner surface of the knee. There was no pain associated with any of them unless they were squeezed. The patient had difficulty in walking because of the plantar lesion, but otherwise there was no discomfort.

Physical examination showed the heart, lungs, eyes, abdominal organs, reflexes and urine to be normal. The Wassermann reaction of the blood was 2 plus.

On the plantar surface of the right foot there was one irregularly oval-shaped, well defined ulceration measuring 2.6 by 4 cm. in diameter. The base of the ulcer was slightly moist and studded with numerous, small, closely aggregated papillomatous projections. Each of these projections averaged from 2 to 3 mm. in diameter, and on pressure exuded a minute drop of thick, mucoid pus. There was a similar, but slightly smaller lesion on the inner side of the right knee measuring 2 by 4 cm. in diameter; the filiform projections, while definitely present, were not as accentuated as those on the plantar surface. On the inner surface of the leg there were five firm or semifluctuant nodules, about an equal distance from each other, which formed an irregularly direct line in the lymphatic course between the two verrucoid lesions. The skin covering three of these nodules was dull red and somewhat shiny. Over the other two it was not changed in color.

The pus expressed from the verrucoid lesion on the sole showed numerous blastomycetes, several of which were in budding form. The pus of one of the nodules was cultured and a characteristic growth obtained.

A section of tissue was removed from the papillomatous lesion on the inner side of the knee and from one of the nodules. In the section from the verrucoid lesion the epidermis was hypertrophied, with prolongation and branching of the rete pegs. Scattered throughout the epidermis and upper part of the corium were numerous abscesses of various sizes. There was considerable cellular infiltration and a few giant cells were seen, but in none of the giant cells were organisms found. In all of the abscesses, however, doubly contoured blastomycetes were demonstrated. The section from the nodule did not differ materially from that of the papillomatous lesions, except that the rete pegs did not extend so deeply into the corium. No abscesses were seen in the epidermis, but throughout the corium there were numerous small ones, and in these also numerous characteristic blastomycetes were seen.

The patient was given five drops of a saturated solution of potassium iodide three times a day. After one week the dosage was increased to ten drops. A week thereafter improvement was noticeable. By the end of the fourth week, almost all of the lesions had disappeared.

The patient did not come back to the clinic until ten weeks later, at which time there was a recurrence of the lesion on the foot. The nodules on the inner side of the leg and the verrucoid lesion on the inner side of the knee had not

recurred. The patient stated that he had taken his drops regularly for two weeks after his last visit to the clinic and then, considering himself cured, had given them up. He had remained well for about six weeks, after which time the lesion on the plantar surface reappeared. Doses of 20 drops of potassium iodide were advised, and when he was seen two weeks later all lesions had again disappeared.

SUMMARY

A case of blastomycosis in which the organisms were apparently disseminated by way of the lymphatics is reported.

106 E. Chase Street

DERMATITIS OF THE EYELIDS DUE TO RUBBER ON AN EYELASH CURLER

EVERETT C. FOX, M.D.
DALLAS, TEXAS

This case of dermatitis is reported because of the unusual etiologic factor—the rubber on an eyelash curler—and the unusual method of its application.

Mrs. H. W. F. complained of a severe dermatitis of both upper and lower eyelids of six weeks' duration. During this time there had been several acute exacerbations with intervals of improvement, but the eyelids never became entirely normal. They were covered by an erythematous papulovesicular dermatitis, and in places there was slight exudation. Movement of the lids was somewhat difficult because of the edema. The deep portion of the fold of the upper lid was entirely clear. This point was observed when the patient was first seen and gave some evidence against the possibility of a direct application of the irritant. That the irritant was not directly applied was later proved by the observation that the material was transferred to the skin by the lashes and that the upper lids were open when contact was made with the lashes. This explained the transverse band of normal skin at the site of the fold on the upper lids. The patient had used the same cosmetics for years without any dermatitis developing. However, all use of cosmetics was discontinued and contacts of the eyelids with extraneous substances avoided, especially substances transferred from the hands. The dermatitis immediately improved but recurred one week later without the use of cosmetics. At this time the patient received a fracture of the ankle and was confined to bed, and again all use of cosmetics was discontinued. During this time the dermatitis recurred acutely and suddenly. The only contact that could be discovered was that of an eyelash curler which had been used about eight hours previously. The curler was used two weeks later, with the development of an acute dermatitis, and again in ten days with the same results. By these three applications of the curler the fact was well established that the use of it would, after an interval of from eight to ten hours, give rise to an acute dermatitis. The dermatitis began as a slight redness with itching and edema. Apparently the irritating material was deposited on the lashes and from there transferred to the lower eyelids and then to the upper lids, because the dermatitis developed first on the lower lids and in a short time on the upper lids. The eyelash curler was bandaged to the flexor surface of the left forearm for twenty-four hours. Twelve hours later there was an area of papulovesicular dermatitis the size of a dollar accompanied with intense itching. At this time the rubber portion of the curler was removed and rubbed on the right forearm for one minute. An erythematous dermatitis with papulovesicles the size of a pinpoint developed at the site in twenty-four hours. Since this time there have been no further contacts with the curler and the dermatitis has not recurred.

504 Medical Arts Building.

RAGWEED DERMATITIS

REPORT OF TWO CASES

FRANCES PASCHER, M.D.
AND
MARION B. SULZBERGER, M.D.
NEW YORK

The results of our experiments in two cases of ragweed dermatitis seem to cast some light on the nature of the excitants in ragweed hay fever and asthma and in the dermatitis caused by ragweed. Further, the results of attempts at passive transference in the two cases seem to bring out clearly in which cases one may expect to find reagins and in which ones they may be expected to be absent, as well as to demonstrate with which pollen fractions the reagins enter into reaction.

More important than the positive findings in these cases is the fact that an exact consideration of the findings again recalls some of the still insoluble problems concerning the action and significance of reagins. Since the publications of Brown, Milford and Coca,[1] of Coca [2] and of Gay and Ketron,[3] it may be regarded as established that the principal and usual cause of the dermatitis associated with ragweed is the fat-solvent soluble fraction of the plant or pollen (pollen oil). On the other hand, it seems that the saline solution, or the so-called protein fraction, is the usual cause of the hay fevers and asthmas associated with ragweed.

The rule that the fatty fractions are usually the active parts in the dermatitis which the plants induce may apply not only to ragweed, but to many other excitants of this group. There is evidence that the plant oils may be the offenders in poison ivy dermatitis and perhaps in chrysanthemum dermatitis. We must, nevertheless, point out that this rule cannot be a general one, for Bloch's [4] active principle in primrose dermatitis is not a fat or an oil, but a crystalline substance. There are many other examples in which the dermatitis is not due to the plant oil. In Angelica silvestris, the active substance is a lactone, called angelica

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1. Brown, A.; Milford, E. L., and Coca, A. F.: J. Allergy **2**:301 (July) 1931.

2. Coca, A. F.: Principles of Diagnosis and Treatment of Allergic Diseases, J. A. M. A. **97**:1201 (Oct. 24) 1931.

3. Gay, L. N., and Ketron, L. W.: J. Allergy **3**:478 (July) 1932.

4. Bloch, Bruno: The Rôle of Idiosyncrasy and Allergy in Dermatology, Arch. Dermat. & Syph. **19**:175 (Feb.) 1929.

lactone; in cinchona bark, it is the water-soluble alkaloid quinine. There are many other water-soluble fractions in plants which cause dermatitis.

Outside of the plant kingdom, the chemicals which are well known to the dermatologist as frequent and typical causes of dermatitis are, more often than not, water-soluble and frequently of very simple chemical structure, being in some cases the molecular elements themselves. We shall mention only mercury, whether it is in the form of corrosive mercuric chloride, of mercurous or mercuric oxide or of mercurochrome -220 soluble (Pascher and Silverberg[5]); arsenic, whether it is trivalent or pentavalent, organic or inorganic; formaldehyde, procaine hydrochloride, paraphenylendiamine and a host of other frequent causes of contact dermatitis.

We therefore warn against generalization of the rule that oil fractions are more likely to cause dermatitis than water-soluble ones, and we urge that each complex excitant be independently examined as to the action of its different fractions. The findings in the two cases of ragweed dermatitis which we shall now report seem completely to confirm the results reported by previous investigators concerning the different rôles played by the oil and protein fractions.

REPORT OF CASES

CASE 1.—C. F., a white man, aged 60, who resided in a country district, was first seen in the clinic for dermatologic diseases of the New York Post-Graduate Hospital on Sept. 6, 1932. There was a history of a generalized, recurrent, severe, eczematous eruption of ten years' duration. The personal and family histories were negative for any other allergic manifestations. It should be particularly noted that there had been no hay fever at any time. The cutaneous eruption, which had been intensely pruritic, was exacerbated each summer and abated each winter. The average duration of the eruption was three months, beginning in June and lasting until frost. The patient showed a generalized vesicular, papular and, in places, weeping eruption, with lichenified areas on the face and the upper extremities. The eyelids were edematous and reddened, and most of the eyebrows were missing.

The following tests were performed:

1. Tests with the standard purchasable pollen antigens (Arlington and Company).

(*a*) Scratch test (immediate wheal reaction)
Giant ragweed, 4 plus
Short ragweed, 3 plus
All other pollens (timothy, golden rod, rye, etc.), negative

(*b*) Patch test (eczematous reaction within twenty-four or more hours)
Giant ragweed, 3 plus (Bloch)
Short ragweed, 2 plus (Bloch)
All other pollens, negative

5. Pascher, Frances, and Silverberg, M. G.: Hypersensitivity to Mercurochrome Shown by the Patch Test, Arch. Derm. & Syph. **27**:408 (March) 1933.

(*c*) Attempts at passive transfer (0.1 cc. of the patient's serum and 0.1 cc. of a normal control subject's serum were injected intradermally into corresponding symmetrical sites on two normal persons, and these sites were tested after forty-eight or more hours—Prausnitz-Küstner technic)
Giant ragweed on scratch at site prepared with patient's serum, 2 plus
Giant ragweed on scratch at control site—negative
Short ragweed on scratch at site prepared with patient's serum, 2 plus
Short ragweed on scratch at control site, negative
Timothy pollen on scratch at site prepared with patient's serum, negative
Timothy pollen on scratch at control site, negative
Attempts at passive transfer to patch tests
Ragweed pollen allergen applied as a patch test for twenty-four hours to the site previously given injection of patient's serum, negative
Ragweed pollen allergen applied to site previously given injection of normal control serum, negative

2. Direct tests and experiments in passive transference performed with a protein-free ragweed pollen oil (prepared for us by Dr. A. F. Coca of the Lederle Laboratories)

(*a*) Scratch tests, negative

(*b*) Patch tests, strongly positive after forty-eight hours, 3 plus (Bloch)

(*c*) Experiments in passive transference (the scratch and the patch tests were performed at the sites previously given injections of the serum of C. F. and a normal control serum), negative (2 normal persons used as recipients)

Two weeks after performing these experiments, we repeated patch tests on the patient, employing Arlington ragweed allergen and Coca's protein-free ragweed pollen oil. The site of the pollen oil patch test was again positive after forty-eight hours, while the site into which the Arlington allergen was injected presented a scarcely visible erythema. The reactions at both sites increased in intensity during the next five days. At the end of this time, the site into which the Arlington allergen was injected was definitely positive, presenting papules and vesicles; the site of the Coca oil patch showed a very intense and spreading eczematous inflammation.[6]

Case 2.—This case was previously reported by Sulzberger and Wise.[7] In 1929, J. E., a white man, aged 40, who resided in a country district, complained of an erythematous and eczematous eruption of the skin which had been recurring in the late summer and fall during the last ten years. There was no familial history of an allergic disease or personal history of allergy—in particular, no hay fever. The appearance of the eruption was similar to that in case 1, with the exception that the legs and feet were involved to a greater extent, with circum-

6. On Feb. 7, 1933, this patient received an intradermal injection of 0.01 cm. of a 1 per cent solution of ragweed oil (for the purpose of commencing desensitization). This site reacted with a bean-sized erythema and infiltration within forty-eight hours. At this time all of the previously positive sites submitted to ragweed patch tests, which were quiescent before this, flared up with intense eczematous reactions.

7. Sulzberger, M. B., and Wise, Fred: Ragweed Dermatitis: With Sensitization and Desensitization Phenomena, J. A. M. A. **94**:93 (Jan. 11) 1930.

scribed areas of erythema covered with group vesicles and papules. There were similar eczematous patches on both arms, on the neck and on the upper portions of the chest.

The results of the tests were as follows:

1. Scratch tests, as already reported,[7] negative, including tests performed with giant and short ragweed (standard Arlington proteins employed)
2. Patch tests with the ragweed allergen, definite eczematous reaction
3. Scratch tests performed in 1932 with the protein-free ragweed pollen oil (Coca), negative
4. Patch tests with this oil produced a strongly eczematous reaction of the site after forty-eight hours, 3 plus (Bloch)

The patient stated that he had complete relief from the ragweed dermatitis. He attributed this to the fact that each year he had received preseasonal desensitization treatment with ragweed oil. He was still residing in a rural district where ragweed abounds.

Experiments in passive transference were carried out with the serum of this patient and gave negative results.

It has been our experience, without exception, that patients with only eczematous reactions and without the immediate wheal type of hypersensitivity possess no reagins.

COMMENT

We should not like to draw far-reaching conclusions from only two cases. However, we believe that the following statements are conservative and justified: In the two cases reported, the dermatitis was caused by the pollen oil, and the eczematous reactions produced by the purchasable Arlington ragweed allergens were probably due to the oil content. That the oil content is present in a slight amount seems to be proved by the slow development of the eczematous reaction to the Arlington allergen and the much more rapid and violent reaction to the concentrated oil, as observed in case 1.[8]

In contrast to this, the urticarial type of hypersensitivity, as shown by the immediate wheal reaction to scratch tests, was not dependent on and could not be elicited by the protein-free oil. It must have been caused by some fraction of the pollen allergen other than the oil in case 1.

The reagins in case 1 were directed toward and reacted with pollen fractions other than the oil, and not with the oil.

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8. The slower reaction at the site into which ragweed pollen protein had been injected speaks for the assumption that the quantity of eczematogenous substance in the protein fraction is less than the quantity present in the oil fraction. We have found the length of the latent period elapsing between the application of the test and the appearance of the reaction to be (in some cases) in inverse ratio to the concentration of the allergen applied (Percival, G. H.: Brit. J. Dermat. **45**:49 [Feb.] 1933).

Reagins may be present in cases of contact dermatitis having no atopic history or disease (no hay fever, asthma or neurodermite), provided the patient also has an immediate urticarial reaction to the allergen. This type of transference cannot be considered as a transference of the eczematous dermatitis. Before one may conclude that one has passively transferred an eczematous dermatitis, one must be sure that the donor of the serum has no wheal or flare reaction to the substance which has produced the dermatitis. We believe that many reports of passive transference of contact dermatitis in the literature have been made because this precaution was not observed (Bloch,[4] Stauffer[9] and Jadassohn[10]).

The patient in case 2, who had only the eczematous form of hypersensitivity and no wheal reaction, had no reagins. This corresponds with the findings of many investigators and with the results of experiments carried out by one of us.[11] In approximately fifty cases of the most extreme forms of eczematous hypersensitivity to various substances but without immediate wheal reactions to these allergens, all attempts at passive transference were unsuccessful. (The results of the Prausnitz-Küstner, Lehner-Rajkas, Koenigstein-Urbachs and all modifications and variations of these procedures were negative.)

The problems which our results again recall are as follows: Why did the patient in case 1, who was apparently nonatopic, have reagins to ragweed? Why did not these reagins, which were capable of sensitizing the skin of normal persons so that an urticarial reaction could be elicited by ragweed, sensitize the skin of the patient himself? In other words, why did he not have spontaneous urticaria in the ragweed season (analogous with the reagins found in infestation with ascaris)? Why was this patient not affected by ragweed asthma or hay fever, in spite of the presence of the reagins and the ample contact with the ragweed pollen, as evidenced by the recurring severe dermatitis? Why do patients with hay fever and asthma, who possess reagins which can create uticarial skin hypersensitivity, have no perpetual and generalized urticaria?

These are among the mysteries concerning the formation and action of reagins for which we are as yet far from reaching a satisfactory solution.

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9. Stauffer, Hans: Arch. f. Dermat. u. Syph. **162**:517, 1930.

10. Jadassohn, W., in Jadassohn, Josef: Handbuch der Haut- und Geschlechtskrankheiten, Berlin, Julius Springer, 1932, vol. 2, p. 353.

11. Sulzberger, M. B.: Unpublished data.

Correspondence

CANCER OF THE LIP

To the Editor:—In the ARCHIVES OF DERMATOLOGY for March, 1933 (page 373), there is an article by Dr. J. A. Elliott entitled "Treatment of Epithelioma of the Lip by the Dermatologist." To deal first with the etiology of cancer of the lip as discussed by Dr. Elliott, I wish to point out that a most important factor in the production of cancer of the lip seems to have escaped attention.

Perhaps I had better explain that cancer of the skin and cancer of the lip are much more common in Australia than in England. The number of cases that I see both in public hospitals and in private practice vastly outnumber those seen by such men as Whitfield and Adamson in London. I have discussed the subject with an old teacher of mine, Professor Jadassohn, on many occasions. It is true that men in Australia smoke a great deal and smoke pipes more frequently than is the case in England. But a hot-stemmed pipe such as the old clay pipe is absolutely unknown in this country. All pipes used here have vulcanite stems and cannot by any stretch of the imagination be described as hot.

Moreover, in this country epithelioma of the lip begins almost invariably on the exposed portion of the mucous membrane of the lip and is almost as often preceded by keratosis. Quite an appreciable proportion of the sufferers are nonsmokers. If the tobacco distillates had a carcinogenic influence in the production of these tumors of the lip, the inner surface on which the distillates must be deposited would be the starting point of a large proportion of these cases.

The matter of etiology has occupied my attention for a number of years. All patients with cancer of the lip and of the skin have been closely examined and questioned on all matters which might have a bearing on the etiology. After examination of many thousands of patients with cancer of the skin and of a very large number, amounting to many hundreds, with cancer of the lip, I find that there is only one common factor in 90 per cent of the cases. This is chronic exposure to sunburn. It is true that this factor does not explain all cases, but it does explain more than 90 per cent of those that occur in Australia. A man can smoke cigars, cigarets or a pipe all his life without fear of producing cancer of the lip provided he is an indoor worker and his hobbies do not expose him to much sunburn. A not inconsiderable number of persons who are nonsmokers and in whom cancer of the lip develops are, in my experience, invariably much exposed to sunburn and show obvious signs of chronic sunburning on the exposed areas of skin.

All of the women (few in number, it is true) whom I have seen with cancer of the lip have been outdoor sunburned folk, and only a very small proportion of them have ever smoked. None of them has ever smoked a pipe.

The explanation for the large proportion of Negresses who have cancer of the lip, as mentioned by Dr. Elliott, is, I suggest, explicable by the fact that probably Negresses are occupied in outdoor work. Colored races in Australia, including our own aboriginals, Negroes and Asiatics, practically never have cancer of the skin. The explanation for this, to my mind, is that though their occupation and habits expose them to a great deal of sunlight, the pigment contained in the skin prevents light, and more especially the ultraviolet component, from reaching the more sensitive protoplasmic layers of the epidermis. The red of the lip does occasionally

show epithelioma in these races in Australia. Again the explanation seems obvious, since the mucous membrane of the lip is not provided with pigment to anything like the same degree as the skin.

I may state that today this theory of the etiology of cancer of the skin is accepted by every dermatologist and by the great majority of other practitioners in Australia. In the case of cancer of the lip, the theory is not quite so widely held because it has not been brought so prominently to notice. Nevertheless, it can be claimed with confidence that the theory is much more widely held than any or all of the other attempts at explanation of the great frequency of this disease in Australia.

Dr. Elliott, it appears to me, does not give irradiation for cancer of the lip a fair consideration. In a paper to appear in the *Dermatologische Wochenschrift* I have described a method of treatment of this condition by the roentgen rays which I have found to be just as effective as the implantation of radium needles around the growth. Regaud's figures for cure of cancer of the lip by means of radium implantation are notably better than many of those mentioned by Dr. Elliott. Personally, I believe that if a result can be achieved by methods which do not occasion destruction of healthy tissue and consequent mutilation in at least the same proportion of cases as that which rewards surgical excision or destruction by electrocoagulation, the first method should have the preference. When results by the first method are better than those achieved by the second, then obviously it is greatly to be preferred, and this, I think, can be claimed with confidence.

With respect to the involvement of glands in the case of cancer of the lip, this event, in my experience over a large number of cases, is rare if the disease is recognized and treated before it has become extensive, and I entirely agree with Regaud's dictum that unless glands are palpably involved no attempt should be made to dissect the gland-bearing areas in the neck until the glands are discovered to be enlarged. It is, however, necessary to keep the patients under regular observation for two years after apparent cure of the primary growth.

I believe that these expressions of opinion emanating from a country like Australia, which has a much larger share of sunlight than most countries of the nothern hemisphere, which is populated by a fair-skinned race and which shows an abnormally large incidence of cancer of the skin and of cancer of the lip, will be of interest to the readers of the ARCHIVES. They may at least provoke discussion, and that is often useful in itself.

E. H. MOLESWORTH, Sydney, Australia.

HOT BATHS IN EXPERIMENTAL SYPHILIS

To the Editor.—I would like to comment on a recent article of Kolmer and Rule concerning the use of hot baths in experimental syphilis. In the April issue of the ARCHIVES OF DERMATOLOGY AND SYPHILOGY (**27**:660, 1933), these authors reported that they treated six rabbits once every twenty-four hours for fourteen consecutive days with hot baths (45 C.) for twenty minutes. This treatment was instituted on the fourth day following the intratesticular inoculation of these rabbits with syphilis (strain Nichols-Hough). Two of these animals were completely immersed in the bath with the exception of their heads. Four others had their testicles and heads out of water. All of them showed an increase of the rectal temperature of about 4 F., or 2.2 C. In the first group of two infection did not develop, and the lymphatic glands remained normal. Specific testicular lesions developed in the other four. These authors cited only the publications of Schamberg and Rule (ARCH. DERMAT. & SYPH. **14**:243 [Sept.] 1926; **17**:322

[March] 1928; *J. A. M. A.* **88**:1217 [April 16] 1927). They concluded that the sterilizing action observed consists in the local effect of hot water on the infected testicles.

I believe it is an opportune time to state that a large scientific literature on this question broached by Kolmer and Rule already exists. This literature has been reviewed by me several times (*Comp. rend. Soc. de biol.* **99**:1610 [Nov.] 1928; **101**:163 [April] 1929; **112**:1250 [Feb.] 1933; *Rev. belge. sc. méd.* **1**:23 [Jan.] 1929; *Bruxelles-méd.*, Aug., 1929, no. 41, p. 1130; Jan., 1933, nos. 11 and 12, pp. 299 and 322; *Urol. & Cutan. Rev.* **34**:71 [Feb.] 1930; 1933, to be published). For many years (*Comp. rend. Soc. de biol.* **99**:1610 and 1613 [Nov.] 1928), I have reported my own experimental results which I am about to review again. I have always taken care to determine the temperature at which the virulent nests of spirochetes are carried to the depths of the tissues. I have given evidence of the local action of heat when various groups of substances were employed for their thermoprophylactic and thermotherapeutic antisyphilitic action. I have definitely outlined the conditions under which the heat factor can kill the virus in superficial organs, as well as in the depths, when employed in vivo. I have insisted on the increased thermal resistance of the virus in the lymphatic glands (*Comp. rend. Soc. de biol.* **103**:937 [Feb.] 1930; *Rev. belge sc. méd.* **4**:687 [Dec.] 1932). I have called attention to the importance of measuring the intratesticular temperature (*Comp. rend. Soc. de biol.* **112**:1250 [Feb.] 1933), believing that this procedure constitutes a fixed and sure criterion which allows one not only to judge the question of the influence of heat on the syphilitic virus within the organism, but also to define the exact limit of the effect of heat in hyperpyrexia.

A. Bessemans, Ghent, Belgium,
Director of the Institute of Hygiene and Bacteriology of the University of Ghent.

Abstracts from Current Literature

EDITED BY DR. HERBERT RATTNER

SOME PRACTICAL PROBLEMS IN THE CONTROL OF SYPHILIS. W. CLARKE, Am. J. Syph. **17**:1 (Jan.) 1933.

This is an excellent article, though difficult to abstract, dealing with pertinent, practical problems in the control of syphilis. The fact that syphilis in its infectious stage can be controlled readily makes its conquest possible and lays it open to the next great advancing step in the history of public health in America.

For those exposed, chemical prophylaxis is of importance. Once a person acquires syphilis, the immediate problem is to make him noninfectious as quickly as possible and to administer that amount of treatment which should, in general, render him permanently noninfectious.

The author doubts the value of syphilitic clinics in which no attempt is made to find the source of infection and the contacts of infectious syphilitic patients. He urges especial attention to the cases of early syphilis and to syphilis in pregnancy and in childhood.

In the present economic crisis, he points out, possible economies, such as decreasing the amount of expensive arsenicals and increasing the amount of cheaper, heavy metals used in the treatment of later syphilis.

THE DIFFERENTIAL EFFECTS OF ARSPHENAMINE AND TRYPARSAMIDE. H. C. SOLOMON, S. H. EPSTEIN and A. BERK, Am. J. Syph. **17**:45 (Jan.) 1933.

The authors present several case reports to emphasize the distinct difference between arsphenamine and tryparsamide as shown by their opposite effects in systemic syphilis and neurosyphilis, in soduku (rat-bite fever) and in malaria.

Arsphenamine is more effective in early and late systemic syphilis presenting lesions of the skin, mucous membrane and bone, whereas tryparsamide is more effective in neurosyphilis. Arsphenamine cures soduku; tryparsamide does not, but it nevertheless modifies the skin or local lesions as effectively as does arsphenamine. Arsphenamine is a plasmodicide and cures malaria produced by inoculation; tryparsamide has no noticeable effect on the plasmodia in blood or on the course of the fevers. The authors conclude that arsphenamine is both a spirocheticide and a plasmodicide, while there is no evidence that tryparsamide has any direct lethal effect on Spirochaeta pallida, Spirochaeta morsus-muris or the plasmodia of tertian malaria. They assume that the beneficial effect of tryparsamide in neurosyphilis is the result of the local action of the drug within the local areas of the nervous system; i. e., the drug stimulates the tissues to heal without affecting the Spirochaeta pallida.

FATALITIES FOLLOWING THE USE OF NEOARSPHENAMINE. A. CANTAROW and B. L. CRAWFORD, Am. J. Syph. **17**:53 (Jan.) 1933.

Three cases are reported of which unusual types of reactions followed the administration of neoarsphenamine. In one case the reaction apparently was the result of acquired hypersensitiveness to neoarsphenamine, and the marked vasomotor changes were due in part to allergic shock and in part to the direct effects of arsenic on the blood vessels. In another case toxic granulocytopenia with anemia and hemorrhagic diathesis followed the use of neoarsphenamine. A third case represented an unusual type of reaction characterized clinically by extensive hemolysis with evidence of active stimulation of the bone marrow and hepatic and renal insufficiency, and pathologically by an unusual type of acute nephrotic lesion with hepatic necrosis of a minor degree of severity. Detailed discussion follows each case report.

THE TREATMENT OF SYPHILIS WITH HYPERPYREXIA PRODUCED BY DIATHERMY. N. N. EPSTEIN and S. BARRE PAUL, Am. J. Syph. **17**:72 (Jan.) 1933.

The authors report their experience of the past two years with the treatment of syphilis of the central nervous system by means of hyperpyrexia produced by diathermy. The technic of Neymawn and Osborne was followed. The temperature was never permitted to go above 41.1 C. (106 F.). The duration of the height of temperature varied in patients from two to twelve hours. Treatments were given at intervals of from three to four days, the majority of patients receiving from five to eight treatments. Previous to diathermy all the patients had received a considerable amount of treatment with arsphenamine, bismuth, bismarsen, mercury, tryparsamide and iodides and two had malarial therapy.

Twenty-eight patients with various forms of neurosyphilis were treated; thirteen had tabes, seven dementia paralytica, three the tabetic form of dementia paralytica, four asymptomatic neurosyphilis and one meningovascular syphilis. In the thirteen patients with tabes, striking improvement was noted, especially in relief from pain. Improvement was seen in patients with other types of syphilis of the central nervous system, but this was not as marked as in the tabetic group. Serologic changes did not parallel the clinical improvement. One fatality occurred.

ELECTRO-CARDIOGRAPHIC FINDING IN PRIMARY AND IN VERY EARLY SECONDARY SYPHILIS. L. CHARGIN and S. S. PALEY, Am. J. Syph. **17**:82 (Jan.) 1933.

Electrocardiographic studies were made in fifty cases of early syphilis of not longer than three months' duration. Forty-seven of the patients were under 35 years of age and three were between 35 and 40; thus the possibility of coronary disease was unlikely. Care was taken to exclude all other disease which might produce cardiovascular change. Therefore, all patients giving a history of rheumatic fever, chorea or heart disease were excluded, as were likewise all patients with a demonstrable valvular lesion. The systolic blood pressure limit was set at 140 mm. of mercury in order to exclude possible arteriostenosis and hypertension. Forty-five patients had received no treatment, and five had received a moderate amount of treatment before the studies were made.

Thirteen patients showed clinically deviation of the right axis. The high percentage of deviation of the right axis would seem to indicate that it is more than a mere coincidence.

Four patients, or 8 per cent, showed definite myocardial involvement as evidenced by changes in the T wave, and it is reasonable to assume that the foregoing changes may be due to the syphilitic infection.

REUTER, Milwaukee.

PIGMENT IN THE NAILS DURING HYPERTHYROIDISM. H. M. THOMAS, JR., Bull. Johns Hopkins Hosp. **52**:315 (April) 1933.

Thomas observed a case of transverse bands of pigment involving the fingernails in a Negress suffering from severe hyperthyroidism. The deposit appeared suddenly. It was calculated that the deposition of pigment took place at the time treatments with radium were applied to the thyroid.

N. P. ANDERSON, Los Angeles.

RELATION OF SKIN DISEASES TO INTERNAL SECRETIONS. W. K. FORD, Illinois M. J. **63**:380 (April) 1933.

The explanation of the relationship between cutaneous disorders and endocrine dysfunction is still largely obscure, and correct interpolation is difficult because of its intricacy. This relationship is discussed from the standpoint of the various endocrine disturbances that occur in the thyroid, pituitary and sex glands, and also from the standpoint of certain cutaneous changes such as pigmentation, hypertrichosis, acne, pemphigus and psoriasis. The article concludes with the statement that there are no pathologic changes in the skin to give a perfect explanation of

its relation to endocrine disturbances except in pigmentation, anomalies of the hair, keratoses, changes in the nails and transient erythemas.

AUTHOR'S SUMMARY.

AN ANALYSIS OF LOEWENSTEIN'S METHOD FOR ISOLATING TUBERCLE BACILLI FROM BLOOD. MAURICE L. COHN, J. Infect. Dis. **52**:214, 1933.

In conformity with earlier observations, the author found acetic acid to be toxic to human and bovine tubercle bacilli, while sulphuric acid is innocuous in the concentration previously recommended (an amount equal to 2 volumes of 6 per cent sulphuric acid for thirty minutes at 37 C.).

An analysis of Loewenstein's method (acetic acid hemolysis and a medium containing asparagine, egg and potato flour) discloses that the medium is satisfactory for growing small numbers of tubercle bacilli, but that the preparation of it is unnecessarily involved, containing as it does a few unessential, expensive materials, and that acetic acid as used by him is bacteriostatic to small numbers of tubercle bacilli as determined by actual static tests and by practical tests with human and with animal blood containing tubercle bacilli, which were recoverable by another method (sulphuric acid treatment and inspissated glycerol water-egg yolk medium) Acetic acid as used by Loewenstein is innocuous to saprophytic acid-fast bacilli, and if these are present in the blood, they may be recovered by this method, but not by the sulphuric acid method.

ACTINOBACILLOSIS OF CATTLE IN THE UNITED STATES. LUTHER THOMPSON, J. Infect. Dis. **52**:223, 1933.

The clinical or pathologic condition in cattle called actinomycosis is caused by several agents, the two most significant of which are Actinomyces bovis (also called Streptothrix) and Actinobacillus lignieresi. There is little in the reactions of the tissues to distinguish the two infections, although the distribution of lesions is somewhat different. Most of the infections of bone are caused by Actinomyces bovis, and most of those of the tongue, glands and soft tissues in general are caused by Actinobacillus lignieresi, but there are exceptions. The organisms themselves are different. Their chief point of similarity is the ability to form in tissues the aggregations called "sulphur bodies." Actinomyces bovis is a gram-positive, rod-shaped or filamentous organism, growing best under reduced oxygen tension; Actinobacillus lignieresi is a small, gram-negative, nonmotile rod, growing best under aerobic conditions.

The author believes actinobacillosis is common among cattle in the United States. It seems that the condition here is similar to that in other countries where the greater percentage of the so-called bovine actinomycosis is due to Actinobacillus lignieresi. The condition known as "wooden tongue" is said by European investigators to be entirely due to this organism. One case of this kind in the present study yielded a culture of Actinobacillus. Most cases of involvement only of the cervical glands were due to Actinobacillus. On the other hand, the few cases of infection of bone encountered in this series were due to Actinomyces.

Both Actinobacillus and Actinomyces produce the aggregations known as sulphur granules. The quickest way of distinguishing the two organisms in pus is by staining the crushed granules by Gram's method. Actinomyces granules stained in this way show numerous gram-positive, rod-shaped forms, whereas those of Actinobacillus give no gram-positive organisms, but with careful search a few small, gram-negative, bacillary forms may usually be found. The only points of similarity between the two organisms are the ability to produce similar lesions in cattle and the ability to form sulphur granules. The granules formed by Actinobacillus are usually less conspicuous and can often be found only with the aid of the microscope.

Agglutinations and absorptions of agglutinins indicate that there is variation among strains of Actinobacillus as to antigenic structure. There is, however, a certain amount of cross-agglutination in all strains. Considerable experience with various strains and with control serum would be necessary before the agglutination

test could be relied on to detect infection among cattle. It is probable that a better way of preparing antigens might be found.

PLEOMORPHIC ORGANISM SHOWING RELATIONSHIPS BETWEEN STAPHYLOCOCCI AND ACTINOMYCETES. MILAN V. NOVAK and ARTHUR T. HENRICI, J. Infect. Dis. **52**:253, 1933.

Throughout the recent work on life cycles and variation in bacteria there has been an undercurrent of assumption that bacteria are fungi, and that their cyclic variations in morphology and cultural characteristics are analogous to, if not identical with, the cyclic changes observed in some of the fungi—the rusts, for instance. If this is true, it seems that the systemic position of the actinomycetes should place them in a strategic position with regard to studies of the life cycles of bacteria, since they are very obviously transitional between the true bacteria and the higher fungi, presenting some characters peculiar to both groups. It is well known that the actinomycetes are themselves a highly variable group as regards both their morphology and their cultural characters. Throughout bacteriologic literature the actinomycetes have been regarded as particularly pleomorphic organisms, especially the pathogenic species, which have been repeatedly described as appearing in coccoid and bacillary forms as well as in branched filaments. It is now known that much of the supposed pleomorphism is due to the modes of reproduction characteristic of the actinomycetes.

The authors were able to recover a yellow staphylococcus from triturated, Berkefeld-filtered cultures of an actinomyces after incubation for five weeks at room temperature. This organism was culturally and morphologically identical with staphylococci on ordinary routine mediums. On dextrose agar, rods and branching filaments developed from the coccoid forms. Filaments or rods reverted to cocci when transferred again to plain agar. Smooth and rough colonies were obtained from cultures of the yellow staphylococcus. Rod and coccoid forms appeared in both smooth and rough colonies. A G type culture was obtained from aged broth cultures of the organism. The elements in the G culture ranged in size from very minute to normal. These G forms demonstrated no filamentous properties and were strictly bacterial in nature. It is suggested that the observations support the theory that the staphylococci are related to the actinomycetes.

CORNBLEET, Chicago.

DYE DERMATITIS IN RELATION TO IDIOSYNCRASY. JOHN T. INGRAM, Brit. J. Dermat. **44**:422 (Aug.-Sept.) 1932.

In 3 cases of dermatitis, patch tests were performed with freshly prepared aqueous solutions of 1 per cent paraphenylenediamine and 1 per cent and 5 per cent metaphenylenediamine. More than 1,000 control subjects were also tested with these solutions. From the figures obtained Ingram concludes that about 4 per cent of normal persons have a natural idiosyncrasy for the phenylenediamines. Contact with the chemicals produced dermatitis in these subjects. The resulting dermatitis may not appear for from twenty-four hours to twenty-four days after contact. The author speculates as to the meaning of these delayed reactions. He asks the following question: Are they indicative of a mild degree of sensitization, or are they the result of development of sensitization in the epidermis after the application of the chemical? He believes that the appearance of delayed reactions confirms the view that the dermatitis is a sensitization phenomenon. From his work he believes that in order to secure complete and accurate results persons on whom patch tests are made should be kept under close observation for not less than one month.

THE CAUSE OF HYPERGLYCEMIA IN ECZEMATOUS PATIENTS. ALEX R. SOMERFORD, Brit J. Dermat. **44**:476 (Oct.) 1932.

The subject is discussed from the following points of view: (1) The hyperglycemia may be the etiologic factor in the production of eczema, and (2) the

hyperglycemia may be an associated phenomenon. The first view, which Somerford states is the one held by observers in America, assumes that the hyperglycemia may be the cause of the eczema seen in some patients. The author believes that this theory assumes that the patients are in a prediabetic state (potential diabetes). Against this theory he cites first that the hyperglycemia is transient, without any of the manifestations of diabetes mellitus, and that the hyperglycemia disappears without any special treatment when the eruption is cured. Secondly, although many of these he studied were under observation for long periods, in no case was true diabetes found to supervene. The second view suggests that the cutaneous lesion is the primary condition and acts on the dextrose-storing mechanism, thereby producing hyperglycemia. This can occur in two ways: (1) by stimulation of the cutaneous nerves which act reflexly, and (2) by absorption of substances from the skin into the blood stream, which, when circulating in the blood, cause hyperglycemia. Both views are discussed by the author. In connection with the latter view, he considers the possible effects of the following three substances: (1) histamine, (2) protein substances and (3) hypothetical products of cutaneous inflammation. Somerford believes that the only theory that seems to be supported by experimental and clinical results is the one of absorption of an epithelial product of irritation which causes the hyperglycemia. The actual substance, in his opinion, is probably an intermediate product of cell metabolism.

ACUTE DISSEMINATED LUPUS ERYTHEMATOSUS WITH STAPHYLOCOCCAL PYEMIA IN A CHILD. E. SCHWARZ and F. PARKES WEBER, Brit. J. Dermat **44**:486 (Oct.) 1932.

The authors report the case of a girl, aged 11 years, who had acute disseminated lupus erythematosus with fatal staphylococcic pyemia from some undiscovered source. No postmortem examination was permitted, but the authors think that in the absence of any signs of tuberculosis and with a negative Pirquet reaction it seems reasonable to suppose that the eruption was a cutaneous syndrome, and that it should be regarded as a manifestation of the staphylococcic infection, just as in various other cases the eruption has been regarded as a manifestation of streptococcic or of other infections.

LUPUS SARCOMA: A FATAL CASE. W. J. O'DONOVAN, Brit. J. Dermat. **44**:538 (Nov.) 1932.

O'Donovan describes the case of a woman, aged 59, who died of sarcoma cutis. The malignant growth appeared in a lupus scar of long duration which had been treated with the x-rays about thirteen years previously. He states that no similar case has come before his notice in practice or in the literature.

SARCOMA ON LUPUS SCAR. LOUIS SAVATARD, Brit. J. Dermat. **44**:544 (Nov.) 1932.

Savatard describes two cases of myxosarcoma occurring in men, aged 54 and 47, respectively. The lesions occurred on old lesions of lupus on the face. A clinical photograph and a photomicrograph of one of the cases are shown.

PARAPSORIASIS. J. M. H. MACLEOD, Brit. J. Dermat. **44**:569 (Dec.) 1932.

MacLeod presents an excellent discussion of parapsoriasis. It should be read by those who are interested in this disease.

PARAPSORIASIS. H. MACCORMAC, Brit. J. Dermat. **44**:576 (Dec.) 1932.

In addition to a brief historical review and a discussion of parapsoriasis, MacCormac comments on pityriasis lichenoides et varioliformis acuta and its relation to parapsoriasis. He believes that as the microscopic picture of the entity named

by Heberman is inconclusive, and in order to classify pityriasis lichenoides et varioliformis acuta properly, one has to depend on the available clinical evidence. He makes the following statements: "The admirable colored plate illustrating Mucha's patient, apart from the necrotic lesions, bears a striking resemblance to parapsoriasis guttata, and Gray stated that he regarded his case as a connecting link between the acute and chronic forms. Further, in Rusch's second case, as quoted by Gross, after seven months the necrotic lesions had disappeared, leaving the typical picture of pityriasis lichenoides chronica. This seems to me a most important observation, meriting the closest attention. Secondly, it would appear that the rebellious quality of parapsoriasis guttata has been overstated." Further comments are made regarding the tendency of parapsoriasis to clear up spontaneously in some cases.

PITYRIASIS ROSEA: REPORT OF A CASE WITH LESIONS OF THE PALMS AND SOLES. FRANK C. COMBES, Brit. J. Dermat. **44**:586 (Dec.) 1932.

A case of pityriasis rosea occurring in a woman, aged 36, is reported. In addition to the usual picture of pityriasis rosea, on the palms and soles there were deep-seated, dusky red papules with a collaret which made them clinically indistinguishable from an early palmar syphilid. There was considerable inflammatory edema about the ankles and over the insteps. Histologic examination of a lesion from the trunk revealed the characteristic picture of pityriasis rosea. Examinations for fungi and the trichophytin percutaneous test were negative. A clinical photograph of the palmar lesions is shown.

THE RESULTS OF INTRADERMAL TESTS IN CERTAIN DERMATOSES AND THE THERAPEUTIC EFFECT OF INTRADERMAL VACCINES. H. W. BARBER and L. FORMAN, Brit. J. Dermat. **45**:4 (Jan.) 1933.

The first part of this paper deals with the results of intradermal tests made on patients with the following diseases: erythema multiforme, erythema circinatum, erythema scarlatiniforme recurrens, erythema nodosum, granuloma annulare and lupus erythematosus. The antigens employed were the vaccine of Streptococcus haemolyticus, Str. viridans, Staphylococcus aureus and tuberculin.

The second part is concerned with the treatment of patients with sycosis coccogenica with intradermal injections of a mixed stock staphylococcus vaccine, and of certain patients with erythema multiforme, erythema circinatum, granuloma annulare and lupus erythematosus with intradermal injections of a stock vaccine containing various strains of Streptococcus haemolyticus and viridans.

The technic of the tests and the treatment is described, and tables showing the results obtained are presented. Of thirteen patients with sycosis treated with intradermal injections of staphylococcus vaccine, eight were completely cured, and the rest were much improved. Patients with erythema multiforme recurrens, erythema circinatum, granuloma annulare and lupus erythematosus were also treated successfully with intradermal injections of a stock streptococcus vaccine.

PERSISTENT HYPERSENSITIVITY TO LIGHT AFTER INTRAVENOUS INJECTIONS OF TRYPAFLAVINE. H. HAXTHAUSEN, Brit. J. Dermat. **45**:16 (Jan.) 1933.

A case of hypersensitivity to light is described in a woman, aged 52, with psoriasis who was treated with intravenous injections of acriflavine hydrochloride and ultraviolet rays from the mercury vapor arc lamp (a method described by Oppenheim: *Dermat. Wchnschr.* **87**:1456, 1928). Prior to the treatment the patient was never inconvenienced by exposure to sunshine. Immediately after being discharged from the hospital following the treatment with acriflavine hydrochloride, she noticed that her face and hands reddened and became swollen and as soon as she was outdoors for a while, not only in bright sunshine, but also in ordinary diffuse light. It was necessary for the patient to stay indoors as even bright sunlight did not inconvenience her when the windows were shut.

Tests were made to determine the nature of the hypersensitivity to light. The tests consisted in irradiation of the abdomen with an unblended mercury light through different filters, i. e., a 0.5 per cent solution of quinine hydrochloride and pure acetone, each in a layer of 1 cm.

On the basis of his observations Haxthausen believes that this case is not to be interpreted as a simple sensitization caused by acriflavine hydrochloride. He thinks that there is a possibility that some conversion product may be deposited in the skin and there give rise to sensitivity of a somewhat different nature. He urges caution in the employment of injections of acriflavine hydrochloride, especially as the therapeutic value of the substance is questionable.

CIRCUMSCRIBED MYXEDEMA ASSOCIATED WITH HYPERTHYROIDISM. J. T. INGRAM, Brit. J. Dermat. **45**:19 (Jan.) 1933.

A case of myxedema is described in a woman, aged 27, suffering from exophthalmic goiter who presented thickened, firm, rugous and coarse skin with prominent pores over the anterior aspects of both legs and over the dorsum of each foot. Ingram states that "it would seem evident that a condition of circumscribed patches of myxomatous degeneration occurring on the legs may be associated with and dependent upon a state of hyperthyroidism, and the determining factor in these cases would appear to be a state of chronic edema of the legs consequent upon cardiac failure. This is suggested by the histories of all cases recorded and by the position of the circumscribed plaques." Two clinical photographs accompany the article.

QUANTITATIVE OBSERVATIONS ON THE ECZEMA REACTION. G. H. PERCIVAL, Brit. J. Dermat. **45**:49 (Feb.) 1933.

A series of experiments is described and discussed with a view to obtaining quantitative data regarding the relation between the concentration and action of certain contact substances in the production of eczematization, and to ascertain how far the results obtained are in accordance with the theory that this is due to an allergic reaction. Corrosive mercuric chloride, red mercuric iodide, chrysarobin, iodoform and trinitrophenol were used as the test substances. Varying concentrations were applied as patch tests in a series of persons, each set of experiments being carried out on from forty to fifty subjects. The results are shown in three charts and in a table. Under favorable circumstances and under similar conditions of external contact, the substances investigated were capable of producing an identical reaction in the skin—the eczema reaction. The causes of the eczema reaction as observed clinically must in many ways correspond in their type of toxicity for the human skin to the two groups of substances investigated.

MEDICAL SHOCK FOLLOWING THE USE OF NEOARSPHENAMINE. H. ORR, Brit. J. Dermat. **45**:58 (Feb.) 1933.

A woman, aged 34, who was being treated for active secondary syphilis, first experienced nausea after her fourth treatment. When she reported for her fifth treatment, she was given 0.5 cc. of 1 : 1,000 solution of epinephrine chloride subcutaneously, and a few minutes later 0.45 Gm. of neoarsphenamine. A few seconds after completion of the injection the patient complained of nausea, vomited and then collapsed, going into medical shock. Orr states that it is generally admitted that nitritoid crisis and medical shock are closely related, but that there is a distinct difference necessitating a totally different therapeutic approach. In nitritoid crisis there is vasomotor paralysis involving the larger vessels and arterioles; the paralysis can be controlled by epinephrine. In medical shock there is capillary paralysis, for which epinephrine is useless, and the blood volume must be increased by the transfusion of blood or by the introduction of saline. The vascular bed cannot be contracted to fit the blood volume, so the blood volume is increased to fit the vascular bed.

URTICARIA PAPULOSA: WITH NOTES OF FOURTEEN CASES WITH AN UNUSUAL HISTORY. J. KINNEAR, Brit. J. Dermat. **45**:65 (Feb.) 1933.

Clinical notes are given of fourteen children varying in age from 7 months to 9 years, in whom urticaria papulosa developed after they arrived in England from America. In two families more than one member was attacked at the same time. In some cases the eruption was present when the patients landed; in others, its appearance was delayed for one month. No food factor was found to cause the condition. The actual exciting cause was not found. The inference is made that Hallam is correct in considering the condition as probably associated with the sleeping conditions at home.

TUBERCULOUS INFECTION WITH ERYTHEMA NODOSUM. H. GORDON, Brit. J. Dermat. **45**:69 (Feb.) 1933.

A child, aged 3 years, presented a primary tuberculous lesion on the left side of the chin and a swollen submaxillary gland. An eruption was present on both legs below the knees; it appeared to be typical erythema nodosum, except that the nodes were barely tender. The eruption on the legs appeared about one week after the lesion on the chin. The submaxillary gland was excised. The Mantoux tests were negative in dilutions of from 1:1,000,000 to 1:1,000. When the patient was seen again four and one-half months later, the lesion on the chin was a definite lupus nodule, and there was a well healed scar over the previous site of the submaxillary gland. The Mantoux test was positive in a dilution of 1:1,000,000.

Gordon believes that unless one regards the appearance of erythema nodosum as a coincidence, this case appears to be an example of the condition occurring as a signal of a systemic invasion by the tubercle bacilli.

ACUTE DISSEMINATED LUPUS ERYTHEMATOSUS: FIVE FATAL CASES. A. C. ROXBURGH, Brit. J. Dermat. **45**:95 (March) 1933.

Five fatal cases of disseminated lupus erythematosus are reported with the results of postmortem examination in three. The cases occurred in four women and one man in the second decade of life. None of the patients presented a history or evidence of tuberculosis. They all died of streptococcic septicemia.

On the basis of his observations in the five cases, Roxburgh draws the following conclusions:

1. The acute disseminated form of lupus erythematosus is extremely uncommon.
2. It is more common in women than in men.
3. Persons between 20 and 30 years of age are the most likely subjects.
4. Most cases begin as the chronic localized type of lupus erythematosus.
5. There is no evidence to show why the condition changes to the acute disseminated type.
6. There is no way of telling whether any given case of chronic fixed lupus erythematosus is likely to change to the acute type, but women between 20 and 30 years of age are the most likely subjects.
7. Arthritis, arthralgia and muscular pains, albuminuria, a purpuric type of eruption and high fever are of evil import if occurring in a case of lupus erythematosus, as they suggest the onset of the fatal stage of the disease.
8. No assistance in diagnosis is forthcoming from the leukocyte count, which is within normal limits, or from the blood cultures, which are usually sterile until near the end.
9. After the onset of acute symptoms, death is not likely to be delayed more than from one to four months.
10. The cause of death is streptococcic septicemia.
11. Tuberculosis has nothing to do with this form of the disease.

WIEN, Chicago.

PUSTULAR PSORIASIS OF THE EXTREMITIES. H. W. BARBER, Proc. Roy. Soc. Med. **26**:15 (Feb.) 1933.

The author reports four cases of pustular psoriasis in which the patients recovered following the removal of infected tonsils. GUY, Pittsburgh.

TREATMENT OF PRURIGO-STROPHULUS BY INTRADERMAL INJECTIONS OF WITTE'S PEPTONE. RENÉ MATHIEU, GASTON LEVY and LAUTMAN, Bull. Soc. de pédiat. de Paris **30**:251 (April) 1932.

Three children who had repeated attacks of itchy eruptions of the skin presumably due to sensitization to various foods were treated by means of intradermal injections of a 7 per cent solution of Witte's peptone, in addition to being given a dietary regimen. The cases were very refractory, and had shown no improvement under many previous forms of treatment. About three injections were necessary to relieve the children of an acute flare-up of the cutaneous condition, and about ten injections were followed by a long period of freedom from cutaneous lesions. Better results were obtained in the children in whom the offending foods belonged to plant life, e. g., potatoes and bread, than in those who could not tolerate animal foods, e. g., egg, fish and meat. The authors have not observed a sufficient number of cases for a long enough time to make any definite conclusions, but they believe that their method of treatment offers some prospect of improvement in suitable cases. BENJAMIN, Montreal, Canada. [AM. J. DIS. CHILD.]

HISTOLOGIC LESIONS OF THE CENTRAL NERVOUS SYSTEM FOLLOWING EXPERIMENTAL INTOXICATION WITH THALLIUM. M. FRAULINI, Riv. di neurol. **5**:526 (Oct.) 1932.

In his experiments, Fraulini administered thallium acetate by mouth in one toxic dose. The animal chosen was the dog, and the amount of thallium acetate administered was proportionate to the weight, the average being 55 cc. of a 1 per cent solution added to milk. On the following day the animals appeared apathetic, somewhat fearful and diffident and presented weakness of the foreleg which resulted in an uncertain gait. On the third day spastic paralysis was evident. The animals were very quiet and had diarrhea and vomiting. On the fourth day the hindlegs became entirely paralyzed and the animals attempted to drag their bodies. By the end of this day the animals died.

A histopathologic study of the spinal cord was made by the method of Nissl and Donaggio. With the Nissl stain the nerve cells showed chromatolysis; some cells appeared deeply stained, while others appeared as unstained shadows. In some cells the tigroid substance was conglomerated in small areas of the cytoplasm. The nucleus was displaced in many cells. With the method of Donaggio for staining neurofibrils, the intracellular neurofibrillar reticulum appeared consistently conglutinated, the fine reticulum having lost its normal netlike appearance and vacuoles being found among the fibers. In a few instances the reticulum was not stained. The nucleus appeared hyperchromatic and was often displaced toward the periphery.

FERRARO, New York. [ARCH. NEUROL. & PSYCHIAT.]

THE HISTOLOGY OF ERYTHROPLASIA. A. KOLB, Dermat. Wchnschr. **96**:96 (Jan. 21) 1933.

A man, aged 78, had a coin-sized, red, infiltrated plaque on the glans penis which extended onto the inner surface of the prepuce. There was a serous exudate, and the surface showed a fine granulation. The lesion had been present for one and one-half years. It corresponded to the erythroplasia described by Queyrat and others. Histologically, the lesion consisted of an even hypertrophy of the epithelium in thick, closely bound strands. There was no tendency toward keratinization. Under the epidermis was a diffuse infiltration of round cells and plasma cells with an occasional eosinophil. The blood vessels were dilated. The elastic fibers were decreased.

A Rare Form of Oidium Albicans Infection of the Tongue. Desider Kenedy, Dermat. Wchnschr. **96**:117 (Jan. 28) 1933.

The author observed two patients, each of whom had a small localized white plaque on the tongue and in both of whom potassium hydroxide preparations showed the presence of a yeastlike fungus. The first was a healthy man 56 years of age whose plaque apparently developed following a burn from hot food nine months before observation. A pure culture of Oidium albicans was obtained. The lesion cleared promptly with the use of a solution of sodium borate as a mouth wash. The second patient was a healthy man aged 60. He was an excessive smoker. Cultures were not made. The lesion cleared in a few weeks after local applications of a weak tincture of iodine and the use of hydrogen dioxide as a mouth wash.

The Prognostic Significance of the Presence of Involvement of the Mucous Membranes in Pemphigus. S. Serefis, Dermat. Wchnschr. **96**:145 (Feb. 4) 1933.

As a result of his own observations and a review of the literature, the author concludes that involvement of the mucous membranes in pemphigus is not necessarily an indication of a severe course. Rapidly progressing pemphigus is usually accompanied by lesions of the mucous membranes, but the reverse also occurs. Lesions of the mucous membranes may appear over long periods without cutaneous manifestations.

Ichthyosiform Erythroderma (Erythrodermie Congénitale Ichthyosiforme of Brocq, Keratosis Rubra Congenita of Rille). Wolfgang Gasper, Dermat. Wchnschr. **96**:150 (Feb. 4) 1933.

The patient was a 9 year old boy who had an extensive keratotic eruption that was most marked on the trunk and around the joints. It had developed gradually, starting when the patient was about 6 months of age. However, when the patient was still a baby the skin had remained persistently redder than normal. The face, hands and feet were relatively free. No bullae had occurred. The hair and nails apparently grew more rapidly than normal. There were no other cases in the family history.

Grenz Ray Therapy in Dermatology. G. Schulte, Dermat. Wchnschr. **96**:159 (Feb. 4) 1933.

The author has used the supersoft roentgen rays for six years. He has observed no unpleasant sequelae except pigmentation, even following large dosage. This form of therapy is of more value than the roentgen rays in nevus flammeus, hemangioma, nevus verrucosus, Darier's disease and lupus vulgaris.

The Allergic Reactions in Arsphenamine Dermatitis. L. Popoff and P. Popchristoff, Dermat. Wchnschr. **96**:189 (Feb. 11) 1933.

A series of patients was tested by intradermal injections of 0.1 cc. of a 1 per cent solution of neoarsphenamine. A positive reaction may occur before the patient has been given arsphenamine, indicating a congenital hypersensitiveness (idiosyncrasy). If the hypersensitiveness is acquired, the test may be negative during the height of the asphenamine dermatitis but becomes positive as the dermatitis clears. Passive transmission of the sensitiveness may be accomplished by the Prausnitz-Küstner method only in cases in which there is very marked sensitiveness. Arsphenamine dermatitis is always an allergic phenomenon, either congenital or acquired. The sensitization is often polyvalent and is a reaction to the arsenobenzene ring and not to the element arsenic. Nonspecific desensitization was not successful. The authors believe that routine tests of the skin of this sort are of practical value.

THE INCREASED FREQUENCY OF LYMPHOGRANULOMATOSIS INGUINALIS AND ITS TREATMENT. FRANZ VERESS, Dermat. Wchnschr. **96**:201 (Feb. 11) 1933.

The author has noted a marked increase in the number of patients with lymphogranuloma inguinale treated in the past few years. This increase should not be ascribed entirely to improved methods of diagnosis. The treatment should consist (1) in increasing resistance by injections of foreign protein; (2) local roentgen therapy; (3) puncture of softened glands by the galvanocautery with drainage by means of a Bier cup, and (4) swabbing of the sinuses with phenol and later packing with gauze soaked with acriflavine hydrochloride.

A MODIFICATION OF THALLIUM EPILATION. A. BUSCHKE, FRITZ SPANIER and PLEGER, Dermat. Wchnschr. **96**:226 (Feb. 18) 1933.

The authors have found that thyroxine increases the toxicity of thallium for mice and rats, while the feeding of thymus or an extract of this gland decreases it. Fourteen children with ringworm of the scalp were given various doses of a thymus extract before the administration of an epilating dose of thallium acetate in an attempt to decrease the toxicity. The results were not sufficiently striking to draw any conclusions as to the practicability of this plan.

INVESTIGATIONS CONCERNING CONGELATION URTICARIA AND URTICARIA FACTITIA. F. MARQUARDT, Dermat. Wchnschr. **96**:261 (Feb. 25) 1933.

The author observed three patients with congelation urticaria and one with urticaria factitia; the conditions appeared two days after the injection of tetanus serum. Passive transfer of the sensitiveness by the Prausnitz-Küstner and the Lehner and Rajka methods was not accomplished in these cases. The application of a tourniquet to the arm prevented the development of an urticarial wheal at the site of application of cold on the forearm. The painting of an area with 10 per cent solution of menthol in alcohol delayed the appearance of the wheal. In each case there was a decrease in the number of white blood cells during the development of the eruption.

DEPIGMENTING PITYRIASIS VERSICOLOR. A. E. RUETE, Dermat. Wchnschr. **96**:233 (March 11) 1933.

A patient with typical pityriasis versicolor was observed. Exposure to the sun caused the involved spots to turn white. A biopsy was performed, and the author concludes, with a number of other authorities, that the condition is a true loss of pigment caused by a form of tinea furfuracea. In the section a slight round cell infiltration was seen in the papillary layer with a marked perivascular infiltration. A true loss of pigment was shown by the dioxyphenylalanine reaction. Most likely the effect is due to toxins released from the fungus by the action of intensive irradiation with sunlight.

CHLOASMA FACIEI IN YOUNG GIRLS, NONPREGNANT WOMEN AND MEN. ARTHUR JORDAN, Dermat. Wchnschr. **96**:336 (March 11) 1933.

The author presents a statistical study of 129 cases of chloasma occurring in persons other than pregnant women. Among the young girls they were usually found in those with menstrual disorders, exophthalmic goiter or diseases of the female generative organs. Among the nonpregnant married women they had either occurred at a previous pregnancy or were associated with the climacterium. In the men they were found with dyscrasias of the internal glands, especially when the gonads were involved.

KERATOSIS FOLLICULARIS SPINULOSA DECALVANS. LEVEN, Dermat. Wchnschr. **96**:341 (March 11) 1933.

A woman, aged 55, had follicular keratosis of the eyebrows and lashes resulting in loss of hair. The condition had been present since youth. There were

also blepharitis, chronic conjunctivitis and trichiasis. No other members of the family were afflicted.

LYMPHOGRANULOMA INGUINALE INFECTION OF MONKEYS. A. COHN and L. KLEEBERG, Dermat. Wchnschr. **96**:342 (March 11) 1933.

A monkey was given an intraperitoneal injection of 4 cc. of pus from a patient with lymphogranuloma inguinale. No symptoms appeared, and the animal was killed six days later. Necropsy showed no pathologic changes of note. Omentum and meninges were used to prepare antigens. The antigens from both produced positive reactions in patients with lymphogranuloma and no reactions in the controls.

UNUSUAL CASES OF SYPHILITIC REINFECTION. KARL PREIS, Dermat. Wchnschr. **96**:343 (March 11) 1933.

The author reports briefly five cases of apparent syphilitic reinfection. He insists that in addition to the fifteen criteria laid down by Bernard, one should observe the development of the new chancre, find numerous spirochetes in the lesion and find numerous organisms by puncture of the glands.

A PECULIAR DERMATITIS CAUSED BY THE BITE OF PHLEBOTOMUS: THE OCCURRENCE OF PHLEBOTOMUS IN HUNGARY. S. SZENTKIRÁLYI and F. LÖRINCZ, Dermat. Wchnschr. **96**:389 (March 4) 1933.

Between the end of July and the middle of August, 1931, the authors saw thirty patients with severe local reactions from the bite of Phlebotomus. A few of these patients presented generalized symptoms in addition to the papulovesicular local reactions. Phlebotomus has been considered an inhabitant of tropical and subtropical countries and has been associated with the transmission of three day fever or pappataci fever. It has also been suspected of having a rôle in the production of kala-azar and of leishmaniasis. Though Phlebotomus has been found in Bulgaria, Jugoslavia and Roumania, it has not previously been reported in Hungary.

L. TAUSSIG, San Francisco.

MYCOSIS FUNGOIDES WITH INVOLVEMENT OF THE BRAIN AND CRANIAL NERVES. C. MONCORPS and G. BORGER, Virchows Arch. f. path. Anat. **286**:157, 1932.

Six and one-half months before hospitalization lesions of mycosis fungoides appeared on the trunk of a man, aged 35. Five months later the general condition was poor, and neurologic symptoms occurred. In the further course of the disease there developed symptoms referable to involvement of practically all of the cranial nerves and others indicative of increased intracranial pressure. Histologic examination at necropsy revealed the presence of infiltrating cellular tissue, similar to that of the cutaneous lesions, in the pia, in the region of the corpora quadrigemina and left caudate nucleus, in both gasserian ganglions and in all the cranial nerves. The degree of involvement of the testis was out of proportion to the clinical and gross anatomic findings.

O. T. SCHULTZ. [ARCH. PATH.]

LICHEN PLANUS WITH PRURIGO-LIKE LESIONS. EMIL PETRÁČEK, Česká dermat. **13**:147 (July) 1932.

A neurotic man, aged 64, who had prurigo for thirty years, presented a typical generalized lichen planus eruption and areas of diffuse lichenification of the skin as described by Brocq. He also had round, pale grayish-white papules without luster or noticeable hyperkeratosis. During the last two years pemphigoid lesions had appeared at times on the dorsa of the hands and the lower part of the legs. Biopsy of prurigo-like lesions showed them to have all the classic characteristics of lichen planus papules. There was, however, an abnormal amount of edema,

the exudate being rich in fibrin. The lymph spaces and vessels were dilated, and in many places there was a tendency toward vesiculation. The exudative nature of the case was the most striking characteristic and strongly resembled the histologic picture of eczema.

In the differential diagnosis of the case—lichen versus eczema—the author quotes Šamberger's theory of hyperkeratotic diathesis. According to the theory in a person born with excessive coherence of epidermal cells lichenoid lesions may develop from a variety of causes (syphilis, tuberculosis and myoma); that is, lesions clinically identical with lichen planus may develop in a patient with eczema if he is born with hyperkeratotic diathesis.

LUPUS ERYTHEMATOSUS OF PALPEBRAL CONJUNCTIVA. J. ZIRMAN, Česká dermat. **13**:171 (Oct.) 1932.

The disease process began primarily on the conjunctiva of the lower eyelid where it remained localized for years. There was nothing characteristic about the inflamed, infiltrated conjunctiva and the few acute lesions similar to burns produced by a caustic agent. The condition could not be diagnosed until the atrophic element of lupus erythematosus became apparent and the process spread without interruption over the free margin onto the skin of the eyelid. The eyelashes disappeared. The conjunctiva became dark red and hypertrophied, and had an uneven surface. The scalp and the lower lip were also involved. As the Mantoux test was strongly positive, the patient was given tuberculin. A focal reaction and improvement followed each injection. A biopsy specimen taken from the conjunctiva showed changes analogous to those in the skin: The epithelium was atrophied; the surface was covered by a homogeneous mass consisting of cells without nuclei. The papillary body was almost concealed by a heavy infiltrate which surrounded the blood vessels and obstructed the glands of Krause. Bandlike adhesions bound the conjunctiva to the tarsus. Atrophy and scarring were most marked toward the free margin. There were occlusion of the meibomian glands and destruction of the ciliary follicles and the glands of Zeiss and of Moll.

CHOREA CAUSED BY THE TOXIC EFFECT OF NEOARSPHENAMINE. VICTOR OKTABEC, Česká dermat. **13**:232 (Dec.) 1932.

In a girl, aged 14, with hereditary syphilis toxic symptoms developed after she had received 1.15 Gm. of neoarsphenamine. She had a high and irregular fever; severe exfoliative dermatitis developed; she experienced excruciating pain in the epigastrium, and severe chorea was present. The psychic and motor excitement increased in severity until a violent tossing of the body occurred which required ether anesthesia for control. Before the nervous symptoms subsided a series of multiple abscesses developed. The patient made a complete recovery. Judging from the pathologic changes in chorea, which include involvement of the central nervous system, particularly the basal ganglions, the author concludes that this unique case was caused by the toxic effect of neoarsphenamine on the corpus striatum, substantia nigra, thalamus and nucleus ruber.

SPINKA, Texarkana, Texas.

TERTIARY ACTIVE SYPHILIS IN MEN AND WOMEN ACCORDING TO THE RECORDS OF THE GOVERNMENT VENEREAL INSTITUTE AT MOSCOW. C. A. KRISTANOV and B. L. REVSIN, Sovet. vestnik venerol. i dermat., no. 6, p. 1, 1932.

The authors examined the records of the Institute and came to the following conclusions: 1. In the years from 1927 to 1929, there was a decrease in the number of patients with tertiary syphilis of the skin, mucous membranes and bone which may be attributed to treatment with arsphenamine and to the improvement of living conditions. 2. Sixty-three per cent of the men affected with active tertiary syphilis were in the age group of from 20 to 40 years, and 50 per cent of the women were in the age group of from 15 to 30 years. 3. Fifty-four per cent of the men con-

tracted the infection from three to twenty years previously and 70 per cent of the women from four to fifteen years previously. 4. Ninety-nine per cent of the patients with tertiary lesions had not been treated before or were treated insufficiently. 5. In a large percentage of the cases tertiary lesions were the first sign of infection to be noted by the patient. 6. The most frequent location of tertiary lesions is the skin and the subcutis; the location next in frequency is the bones, and then the mucous membranes. 7. Eighty-six per cent of the men and 92 per cent of the women affected with active tertiary syphilis show a strongly positive Wassermann reaction. The cerebrospinal fluid showed changes in 10 per cent of the men and in 4 per cent of the women. 8. In 22.5 per cent of the men and in 10.5 per cent of the women, cerebrospinal involvement was associated with the active lesions in the skin, mucous membranes and bones. Visceral involvement occurred in 6.2 per cent of the men and in 5.8 per cent of the women.

THE FUNGI IN SUPERFICIAL MYCOSES IN CHILDREN. I. F. SHORNO, Sovet. vestnik venerol. i dermat., no. 9-10, p. 10, 1932.

Among 2,552 school children, the author has found only 36 affected with fungus infection. In addition to these 36 children, the author has investigated 99 children up to the age of 14 suffering of mycotic infections. In 74 cases, Microsporon lanosum was found. In 28 of these cases there was involvement of the scalp alone; in 28, involvement of the scalp and of the glabrous skin and in 18, of the skin alone.

Trichophyton violaceum was found in 23 patients, 19 of whom had only involvement of the scalp; in 3 there was also involvement of the skin and in 1 there was only involvement of the skin.

One child had favus of the scalp and Achorion schoenleinii was found.

DIPHTHEROID OF THE SKIN. S. BAGDANOV and K. GAVRILOV, Sovet. vestnik venerol. i dermat., no. 9-10, p. 37, 1932.

The authors report a case of a 17 year old boy who complained of a painful ulceration in the anal region, of painful defecation and of general weakness of one week's duration. The ulcer was superficial and was 4½ by 6 inches in size. Its borders were soft and the base was uneven. The ulcer bled easily and was covered with a grayish-greenish matter. Bacteriologic examination revealed only diphtheroid bacilli which morphologically could not be differentiated from diphtheria bacilli. However, different biologic tests such as the virulence test on the guinea-pig, the effect on carbohydrates, the agglutination test and the negative effect of diphtheria antitoxin on the patient proved that the ulcer contained diphtheroid and not diphtheria bacilli.

PHYSICOCHEMICAL PROPERTIES OF SOME ANTIGENS. M. I. RAVITSH-SHTSHERBO, Sovet. vestnik venerol. i dermat., no. 9-10, p. 53, 1932.

The author has found that the most sensitive syphilitic antigens, like Kahn and Finkelstein, had the smallest viscosity, the highest concentration in hydrogen ions and the highest titrable acidity, the largest content of cholesterol, phosphatids and other organic substances and also the greatest amount of dry residue and mineral substances in comparison to the Wassermann and Sachs-Georgi antigens.

IMMUNOLOGIC STUDY ON SPIROCHETOSES: II. CUTANEOUS INOCULATION WITH FRAMBESIA OR SYPHILIS FOLLOWED BY INTRAVENOUS REINOCULATION WITH SYPHILIS OR FRAMBESIA, RESPECTIVELY. H. MISAIZU, Lues: Bull. Soc. japon. de syph. **8**:194 (Dec.) 1932.

The author tried to solve the problem of the identity or duality of syphilis and frambesia by the following experiments:

1. Rabbits were inoculated cutaneously with Spirochaeta pertenuis and after twenty, thirty, forty, fifty-two and seventy days treated with arsphenamine. They

were then inoculated intravenously with Spirochaeta pallida. No cutaneous reaction was noted at the site of the first inoculation, such as is usually present after a primary infection with syphilis. In these rabbits, as in control animals, there was an abundant generalized syphilitic papular eruption, but the period of incubation was longer in the animals preinfected with frambesia.

2. Rabbits were inoculated cutaneously with S. pallida and twenty, thirty, forty-five, sixty-five and eighty days later treated thoroughly. They were then inoculated intravenously with S. pertenuis. In this experiment also, the infection with syphilis did not have any inhibiting influence on the generalization of the following infection with frambesia, though the period of incubation was a little longer than in control animals.

STUDY ON EXPERIMENTAL SYPHILIS IN RATS: III. THE SPIROCHETE CONTENT OF INTERNAL ORGANS OF SYPHILITIC RATS. K. YASUMOTO, Lues: Bull. Soc. japon. de syph. **8**:217 (Dec.) 1932.

An emulsion of internal organs of rats previously infected with syphilis was injected into the skin of the backs of rabbits. The results obtained were as follows: (1) Fifteen of seventeen rabbits had typical chancres containing spirochetes at the site of inoculation, and (2) the internal organs of rats killed from fifteen to three hundred and ninety-three days after infection with syphilis always contained spirochetes and gave the same result in the transfer experiment to rabbits irrespective of the duration of the infection.

STUDY ON EXPERIMENTAL SYPHILIS IN RATS: IV. REINOCULATION OF SYPHILITIC RATS. K. YASUMOTO, Lues: Bull. Soc. japon. de syph. **8**:225 (Dec.) 1932.

Rats were infected subcutaneously or intraperitoneally with from 0.5 to 1 cc. of an emulsion of syphilis virus and treated at various intervals for from sixty to three hundred and fifty days after infection with a sufficient amount of arsphenamine to cure them. From seventeen to twenty-one days after the last treatment they were reinoculated with the virus; from twenty-five to thirty-six days later the iliac or axillary lymph nodes were examined carefully under dark-field illumination, and a mixed emulsion of the internal organs was injected into the skin of rabbits.

In twelve of twenty-five reinoculated rats living spirochetes were found in the lymph nodes, and in twenty-two of twenty-five inoculated rabbits typical chancres developed at the sites of inoculation. The author concludes that in the rat no noticeable immunity to syphilis takes place.

BLOOM, New York.

Society Transactions

CHICAGO DERMATOLOGICAL SOCIETY

E. A. Oliver, M.D., *Secretary*

Annual Meeting, Jan. 18, 1933

Michael H. Ebert, M.D., *President, in the Chair*

Bullous Dermatitis (Pemphigus ?). Presented by Dr. Oliver S. Ormsby.

A man, aged 51, had a disorder of three months' duration when first examined on Aug. 29, 1932. At that time he stated that the eruption began as blisters ten days after an injection of diphtheria antitoxin. There had been trouble with the throat from time to time in addition to the lesions on the skin.

On examination the lesions were found chiefly on the lower extremities, but some were present on the neck, in the axillae and on the flexor surfaces of the upper extremities. The lesions consisted of crusted areas varying in size from that of a pea to that of a palm. Numerous milium-like bodies were present on an erythematous infiltrated patch the size of a hand on the right calf.

From the date of examination until the present intermittent attacks have occurred, with marked involvement of the throat; the lesions in this part were painful erosions. Numerous bullous lesions developed. Nikolsky's sign was positive. There are oral excoriations, which are limited to the tonsils. The cutaneous eruption consists of a moderate number of bullae and numerous crusted lesions varying in size from that of a pea to that of a dime. Large numbers of milia in groups are situated chiefly on the upper part of the thighs, the lower part of the abdomen and on the legs. A few irregular lesions are present elsewhere.

Examination of the blood showed: hemoglobin, 90 per cent; leukocytes, 8,550, and erythrocytes, 4,380,000. A differential leukocyte count was as follows: neutrophils, 69 per cent; eosinophils, 2 per cent; lymphocytes, 26 per cent, and transitionals, 3 per cent.

DISCUSSION

Dr. H. E. Michelson: This is a most extraordinary case. The eruption and its distribution would lead one to think of dermatitis herpetiformis; the age of the patient and the nature of the onset point to pemphigus, while the type of scarring is that seen in epidermolysis bullosa. In any event the case falls under the heading of bullous eruptions. The subsequent course will make a definite diagnosis possible.

Dr. Paul A. O'Leary: The possibility of acquired epidermolysis bullosa and low grade pemphigus occurred to me in about that order. The fact that trauma produced bullous lesions, in spite of the presence of the lesions in the mouth, leads me to place epidermolysis bullosa slightly ahead of pemphigus as a diagnostic possibility.

Dr. William Allen Pusey: I think that the condition is a mild form of pemphigus, or perhaps it is dermatitis herpetiformis. There are lesions in the mouth, so I called it pemphigus. I do not believe that any sharp distinction can be made between borderline cases.

Dr. O. H. Foerster: This case illustrates the difficulty that is sometimes encountered in differentiating pemphigus benignus from dermatitis herpetiformis

with a tendency to form bullous lesions. The old school of Viennese dermatologists made no distinction between the two. When there is a history of injections of serum followed by a sudden onset of the disease, one must consider the possibility of the type of pemphigus following vaccination that has been described by Mook and others. The eosinophilia of only 2 per cent is of importance, I think, in the differential diagnosis. I do not recall seeing as many milia as are present in this patient in any conditions except pemphigus and epidermolysis bullosa. I favor the diagnosis of pemphigus.

DR. OLIVER S. ORMSBY: I think that the patient has pemphigus. When he was first seen there was a question whether the case was one of dermatitis herpetiformis, pemphigus or multiple erythema. These three diseases often come up for consideration, and a distinction can be made only after a period of observation. The painful lesions in the mouth, the low count for eosinophils and the positive Nikolsky sign are all favorable to the diagnosis of pemphigus. The proportion of eosinophils is usually greatly increased in dermatitis herpetiformis, and painful erosions in the mouth have not been observed in that disease. Injections of calcium were of value in this case, while arsenical therapy was apparently of no service. I am not sure that the injections of diphtheria antitoxin were concerned in the production of the eruption, but in view of the cases of dermatitis herpetiformis following vaccination reported by Dr. Pusey and those of pemphigus reported by Dr. Howe of Boston, I thought that this part of the patient's history was of interest.

SYPHILIS (CONGENITAL). Presented by DR. B. B. BEESON and DR. MICHAEL H. EBERT.

A colored child, aged 1 year, has lesions of the skin about the genitalia and on the face of four months' duration. The lesions are circinate and papular. The Kahn test was positive.

DISCUSSION

DR. MICHAEL H. EBERT: It is interesting that at such an early age this patient shows the tendency to annular lesions, which commonly are seen only in later life. Some fundamental biologic process must be involved, as Dr. Michelson suggested to me.

LICHEN PLANUS. Presented by DR. J. H. MITCHELL and DR. RUBEN NOMLAND.

A white child, aged 3½ years has an eruption of four weeks' duration. The condition began on the backs of the hands and became generalized in about two weeks.

Examination revealed a generalized eruption that involved the face; there were a few lesions on the palms. The eruption consisted chiefly of large violaceous patches with fine scaling and smaller flat-topped violaceous papules with a varnished appearance. No lesions, were present in the mouth. The child had been taking medicine prescribed by a physician for about two weeks. A diagnosis of lichen planus was made. Since the patient was first seen a few days ago the eruption has come to resemble more nearly toxic exfoliative dermatitis.

DISCUSSION

DR. H. R. FOERSTER: I agree with the diagnosis of lichen planus and consider the case noteworthy because of the youth of the patient. The severity and extent of the eruption and the associated secondary dermatitis might warrant a diagnosis of lichenified dermatitis, but I believe that the papules are typical of lichen planus.

DR. CLARK W. FINNERUD: My first impression was that the condition was lichen planus, but I do not feel entirely sure about it now. There is a diffuse,

heavy scaling with a slight crusting in the scalp; the skin under the toes is thickened, exfoliating and fissured and, although there is no appreciable inflammation in the groin and the internatal region, the patient reminds me of two patients with a generalized eruption who were seen in the Central Free Dispensary a few years ago. One of the patients presented a picture of seborrheic and infectious dermatitis, and the condition of the other one, because of numerous lichenoid papules, somewhat resembled lichen planus. Biopsy specimens were taken from six or more areas of the skin of each patient. Monilia was cultivated on nearly all of these specimens, and in some Cryptococcus was found. I am not sure that the condition of the patient presented is not an instance of true fungus or yeast infection with an accompanying generalized "id" eruption. If I am not mistaken, the two conditions mentioned cleared up entirely with mild fungicidal treatment.

DR. O. H. FOERSTER: If the case can be studied further along the lines described by Dr. Finnerud and if the presence of a dermatophytid can be established, it will be of considerable interest and importance. It is known that lichenoid or lichen planus-like lesions occur in connection with infections of the scalp, but I do not recall that lesions resembling lichen planus as closely as in this patient have been reported among the dermatophytids seen in association with lesions on the extremities.

DR. CLEVELAND J. WHITE: I have seen one case of grouped papulofollicular mytid associated with active ringworm of the feet, from which Monilia was recovered, so a grouped follicular moniliatid is a possible syndrome.

DR. J. H. MITCHELL: Even if the child has organisms between the toes it would not prove that this was an "id" eruption. I have had many patients with lesions on the hands and between the toes and have been able to show that the organisms between the toes were different from those elsewhere. I have photographs of patients with typical ringworm of the toes and typical moniliasis of the groin; the organisms were entirely different. It is a mistake to assume that because a fungus infection is present on the feet all coexisting dermatoses are due to the same organism. It is common to find different types of fungus infection on the same person. This condition has changed markedly since the patient was seen a few days ago. Then I was sure that the eruption was lichen planus, but I am not so sure now. In view of the suggestion that it is mycosis, I shall undertake to investigate it thoroughly.

DR. THEODORE CORNBLEET: In two patients with eczematoid ringworm of the soles studied about three years ago at the Research and Educational Hospital of the University of Illinois there was an accompanying generalized lichenoid eruption. The same types of fungi were recovered from the toes and from the blood stream.

DR. WILLIAM ALLEN PUSEY: I wish to uphold the diagnosis of lichen planus in this case. There are some typical lesions of that disorder, but I think that the child has dermatitis in addition, a secondary condition. Certainly lichen planus is present.

A CASE FOR DIAGNOSIS (IDIOPATHIC ATROPHY?). Presented by DR. S. W. BECKER.

A girl, aged 19, a university student, has an eruption on the neck of four years' duration. It appeared gradually and has been stationary for the past two years. It seemed to be aggravated by sunlight, but cleared up with ultraviolet irradiation only to recur. It improved during the winter. No fungi were found in scrapings of the skin.

Biopsy revealed the following changes: The stratum corneum was thin and loose. The stratum granulosum consisted of one layer of cells. The stratum mucosum was thin in one portion of the section and was somewhat thickened in another, although not to a great extent. The papillae varied in degree of prominence, but the prominence was in general not pronounced. The superficial

vessels were dilated. A few dilated lymph spaces were also seen. The subpapillary portion of the dermis was loose and appeared edematous, although the collagen stained normally. Elastic fibers were present throughout, but were less conspicuous in the areas of loosened collagen. Pigmentation was practically uniform throughout.

DISCUSSION

DR. PAUL A. O'LEARY: I have had an opportunity to see two patients with similar conditions. In the differential diagnosis macular atrophy, poikiloderma of Civatte and white spot disease must be considered. In the cases that came under my observation, histopathologic examination showed a slight degree of atrophy throughout the entire section. In this case the absence of pigmentation seems to be decidedly against a diagnosis of poikiloderma of Civatte, and the histopathologic features readily rule out white-spot disease. By exclusion, then, the condition seems to fall in the group of macular atrophy akin to the type of cutaneous atrophy that is not infrequently seen following the febrile onslaughts of infectious diseases. Dr. Jeffrey Michael of Houston has been observing a patient with such a condition for some time; he reported recently that on examination the lesions were found to have entirely disappeared. Repeated search for fungi in the two cases that I observed has been without results.

DR. CLARK W. FINNERUD: There was a patient with a similar condition at Cook County Hospital a year or two ago. No organism was found in the scrapings of the skin, and cultures were negative. The final conviction, however, was that the patient, a Mulatto, had a fungus infection possibly akin to tinea versicolor. Whitfield's ointment was prescribed, but the patient never returned. Two cases identical with this one were studied in Dr. Ormsby's office; examination gave negative findings for fungi. The conclusion was reached that the condition was not true atrophy but pseudo-atrophy. All these patients showed infiltration in some of the more recent lesions, as did the patient presented, so one can conclude that this is one of the clinical features of the disorder. I noticed that the center of many of the lesions consisted of a slightly depressed punctum, which apparently was the mouth of a dilated follicle.

DR. OLIVER S. ORMSBY: I have had the opportunity to observe several patients with this condition, but unfortunately I have not learned anything of value. I feel certain that the conditions are not examples of guttate morphea or of Civatte's poikiloderma, and they do not correspond to the macular atrophy with which I am familiar. Some of the conditions apparently are not atrophic, the crinkling of the skin simulating atrophy. They are unusual and require more study.

DR. RUBEN NOMLAND: I have had an opportunity to study a condition similar to this, except that it occurred in a colored woman in whom there were depigmentation and apparently macular atrophy in areas in which biopsy showed a decrease of elastic tissue in the upper part of the cutis and suggestive atrophy of the epidermis. I do not feel that the condition is macular atrophy, but it comes as closely as possible to that without being definite. I have seen two cases of macular depigmentation which appeared to be atrophy, but which under the microscope did not prove to be that disorder.

DR. HAMILTON MONTGOMERY: I did not see any real atrophy of the epidermis or cutis in the section shown. In the two cases in the study of which I participated it was only after serial sections were taken that it was possible to demonstrate small areas of atrophy of the epidermis and slight sclerosis of the hair follicles. There was no appreciable change in the elastic or the connective tissue.

DR. S. W. BECKER: I had an opportunity to see one of the patients Dr. O'Leary mentioned; at that time there was considerable discussion as to whether the lesions were atrophy. The fact that they have involuted is evidence against atrophy as it is understood, namely, destruction of the elastic tissue. As Dr.

Ormsby said, the epidermis appears glazed. It may be that an epidermal change which has not yet been described in the literature gives this peculiar glazed appearance, and that after a period of years, for some reason or other, the condition reverts to normal.

TULAREMIA. Presented by DR. A. W. STILLIANS.

An American housewife, aged 42, stated that she had skinned some wild rabbits about Dec. 1, 1932. Three days later a fever developed; and she was told by her physician that she had influenza. On the third day of the illness she first noticed the lesions on her fingers.

When she entered the clinic of the Northwestern University Medical School on Jan. 11, 1933, her temperature and pulse rate were normal. On the tips of three fingers of the left hand and on that of the right thumb were violaceous semitranslucent papules about 0.3 cm. in diameter, with a central saucer-shaped depression about 0.1 cm. in diameter. Only a few of the lesions were discrete, most of them being confluent and forming nodules ranging up to 1 cm. in diameter, of the same color and semitranslucence, with small depressions on the surfaces, or larger erosions covered by thin crusts. In both axillae were large, smooth, slightly tender glands which were quite hard. The patient complained only of slight malaise at the time of examination.

A specimen of blood sent to Dr. Francis of the United States Public Health Service on January 11 was reported as agglutinating in a dilution of 1:1,280.

TULAREMIA. Presented by DR. E. P. ZEISLER.

A butcher, aged 39, was infected eight weeks ago while skinning wild rabbits. On admission to the hospital there were two small ulcerating lesions on the dorsal surfaces of the fingers. There was a firm mass of axillary glands, and a subcutaneous mass was present along the lymphatic chain of the upper and inner aspect of the arm. There were moderate pyrexia, pain along the arm and a slight general malaise. The agglutination test with Bacillus tularensis was positive in a dilution of 1:60. Recovery took place with symptomatic therapy.

The lesions of the fingers have entirely healed, but the glandular enlargement has persisted.

DISCUSSION

DR. OLIVER S. ORMSBY: I think that tularemia is of extraordinary interest. Knowledge in regard to it is the product of American scientific research led by Francis. It is interesting to note the large number of carriers through which the disease may be transferred to man. The disorder has been reported as caused by the bites of the coyote, gopher and squirrel; other hosts from which it has been transmitted to man include the opossum, woodchuck, muskrat, sheep, quail and sage hen, in addition to the common carrier, the wild rabbit. While tularemia seems to be largely a medical disease, the fact that many patients have lesions which simulate sporotrichosis in addition to a primary cutaneous lesion makes the disorder of dermatologic interest. The disease is also recognized in Japan and Russia and possibly in other countries.

DR. E. A. OLIVER: It is interesting to note the apparent increase of tularemia in this part of the country. This increase in probably due to the fact that we are better able to recognize the disease today than we were four or five years ago. Notwithstanding this fact, I believe that these are the first cases of tularemia of this type to be shown before this society. Last year I presented a case of oculoglandular tularemia; that was the first case of its kind to be reported here.

DR. OLIVER S. ORMSBY: The first clinical description of tularemia was made by Pearse of Utah under the name "insect bites." His description is classic.

DR. O. H. FOERSTER: I should like to ask whether lesions of the skin other than the primary ulcer have been observed in tularemia. I saw a patient recently

at the Wisconsin General Hospital in whom nodose lesions with the characteristics of erythema nodosum developed on the extensor surfaces of the forearms, thighs and legs early in the febrile stage of tularemia.

DR. OLIVER S. ORMSBY: I think that the only specific cutaneous lesions that have been recorded are the primary papules and ulcers on the hands and fingers and the sporotrichosis-like lesions on the arms. There are numerous nonspecific eruptions.

DR. A. W. STILLIANS: I was much interested in the small lesions on the fingers of the patient whom I presented. I took a section for biopsy and hope to present the findings next month.

RECKLINGHAUSEN'S DISEASE. Presented by DR. B. B. BEESON and DR. MICHAEL H. EBERT.

A Negress, aged 25, has lesions of the skin which she states have been present ever since she can remember; they are accompanied by slight itching.

Examination revealed numerous small tumors located chiefly on the back. Most of the lesions were firm, but several could be pressed into the skin through ring-like openings. They varied in size from that of a match-head to that of a bean. There were a number of brownish spots on the back. Angiomatous lesions were present on the dorsum of the tongue.

DISCUSSION

DR. H. E. MICHELSON: There has been a great deal of interest lately in neurofibromas. A patient with this condition should be carefully examined. There is a variety of forms: There may be only a few lesions of the skin with marked involvement of the nerve or the internal tissue, or there may be large sessile or pendulous lesions. Masson in a splendid article lists many conditions in this class and shows that most neuromas, for example, such as those seen at Ann Arbor, belong to the neurofibromas. He calls them schwannomas.

DR. F. E. SENEAR: This patient was shown about ten years ago, I think. I saw her at the University of Illinois. At that time she had only the rounded lesions with hernia-like openings. I thought that the case was one of multiple benign tumor-like new growths. Every one agreed with the diagnosis at that time except Dr. Waugh, who suggested that the condition might be Recklinghausen's disease. Dr. Oliver presented the same patient a few years later, when the more typical tumors of Recklinghausen's disease and also some pigmented spots that were not present when she was first shown had developed. Today the picture is more typical of what is thought of as Recklinghausen's disease. We have had occasion to study about four of these cases at the University of Illinois, this particular one being the case that first stimulated interest. Since studying these cases I have thought that perhaps all the cases studied by Schweninger and Buzzi if observed long enough, would prove to be, abortive cases of Recklinghausen's disease. It has been interesting to see the change in this patient from the condition every one was willing to accept as multiple benign tumor-like new growths to typical Recklinghausen's disease.

DR. MAX S. WIEN. About a year ago I saw a patient with Recklinghausen's disease with a tumor in the right thigh. The growth was removed and was found to be a tumor of the nerve sheath. The patient returned about a week ago with another tumor, which will be removed surgically.

DR. HAMILTON MONTGOMERY: Several cases of a medullated and nonmedullated plexiform neuroma occurring in association with Recklinghausen's disease have been reported in the literature. The question whether Recklinghausen's disease is a tumor of the connective tissue of mesodermal origin or a nerve tumor of ectodermal origin has been debated, and opinion has alternated between the two

possibilities, conclusions depending in part on the view as to whether Schwann's cells are the essential part of the tumor and whether these are of ectodermal or of mesodermal origin.

Dr. B. B. Beeson: I am interested to hear the previous history of this patient, and shall try to gain more information in regard to it.

Dr. William Allen Pusey: The patient stated that the tumors were about as large when they first appeared as they are now.

Dr. F. E. Senear: That is not correct. Those who have observed the case over a period of time have seen the tumors change in size. When the patient was first seen, there was only one lesion as large as a hickory nut; the condition has changed markedly.

Dr. H. R. Foerster: I wish to supplement Dr. Michelson's remarks by calling attention to the occasional occurrence in Recklinghausen's disease of tumors in the intestine and omentum and of bone cysts, considerations one is apt to overlook because one's attention is concentrated on the cutaneous manifestations.

Dr. William Allen Pusey: When I think of the many phenomena that can occur in Recklinghausen's disease, from freckles to cysts of the bone and cerebral tumors, I am reminded of a comment I once heard a famous bacteriologist make in regard to the pneumococcus to the effect that it can do anything that it pleases. The same is true of Recklinghausen's disease, so far as anomalies in the structure of the skin are concerned. Schweninger and Buzzi's tumor-like new growths are defects in the structure of the connective tissue which weaken the corium in small spots and allow tumor-like bulging of the skin. It is not surprising that they occur in Recklinghausen's disease.

Superficial Epithelioma, Basosquamous Type (?). Presented by Dr. J. H. Mitchell and Dr. Ruben Nomland.

A white man, aged 53, has an erythematous eruption on the left side of the face of fifteen years' duration. It began as a small crusted area below the ear and slowly grew to its present size. There have been practically no subjective symptoms.

The lesion extends from the lobe of the ear downward to the collar line, upward well over the angle of the jaw and anteriorly about two thirds of the way to the point of the chin. When the patient was first seen there was much crusting because of the application of irritating remedies. After the crusting cleared up the lesion remained as a red, scaling, indolent patch. At times small pustules have appeared about the hair follicles. There are suggestive atrophy (scarring) over the angle of the jaw and a somewhat glazed appearance. There has been little, if any, loss of beard. The border of the lesion is cleancut and scaling; there is no threadlike margin or pearly border.

The diagnoses which were considered most plausible were lupus erythematosus, scarring folliculitis and, possibly, lupus vulgaris. At the angle of the jaw there is a hard subcutaneous lump the nature of which is unknown. When one presses the mass against the angle of the jaw, one has the impression that it is calcareous.

Biopsy revealed that the lesion is an epithelioma. A piece taken from the border showed downward proliferation of an epitheliomatous character originating in multiple areas in the basal cell layer. In some places the cells were of the typical darkly staining basal cell type, but in general the proliferating cells showed a tendency toward the prickle cell type. There was no microscopic pearl formation. In some places there were dyskeratotic areas suggestive of the picture of Bowen's dyskeratosis. There was a rather marked inflammatory reaction of the cutis consisting chiefly of plasma cells.

DISCUSSION

Dr. Hamilton Montgomery: In one corner of the slide there is an area which probably represents an early squamous cell epithelioma in situ. In other parts of

the slide there are areas suggesting an early basal cell epithelioma, but I am inclined to think that this condition indicates merely a benign response to the inflammatory reaction that was marked in these areas. I do not think that the lesion is superficial epitheliomatosis. If it is an epithelioma, it is more probable that the condition is secondary to whatever process is taking place beneath rather than that the latter is a glandular metastasis. Dr. Michelson has justly raised the question whether the condition might be a mixed tumor of the parotid gland.

DR. CLARK W. FINNERUD: I was unable to make a diagnosis of epithelioma from the histologic section that was demonstrated.

DR. J. H. MITCHELL: I think that the condition is a superficial epithelioma of a tendon, of either basal or mixed type. The patient told me that the growth was incised some years ago and that the material evacuated was a semiliquid mass, which suggests a sebaceous cyst. There is a fine, rolled border in places. The sections that Dr. Nomland gave me are much more typical of epitheliomatosis than the one shown here.

DR. RUBEN NOMLAND: I shall cut the plaque and make better sections. This case is similar to that of a patient who was shown before the society about four years ago (Epithelioma [Superficial, Basal Cell] ARCH. DERMAT & SYPH. **20**:119 [July] 1929); the patient had an erythematous lesion of the right cheek which proved to be an epithelioma. The diagnosis in that case was only made by biopsy, which was performed at the suggestion of Dr. Ormsby.

A CASE FOR DIAGNOSIS (TUBERCULOSIS OF THE SKIN: LUPUS VULGARIS?). Presented by DR. MAX S. WIEN and DR. MINNIE O. PERLSTEIN.

A Negro boy, aged 11, was admitted to the Cook County Hospital because of painful cervical adenitis on the right side of four months' duration associated with a persistent rise in temperature in the afternoon. There were complete ankylosis of both elbow joints and shortening of the left leg. Puckered scarring was present on the right groin and the right ankle, and there was a diffuse granulomatous eruption on both elbows. The lesions had been present since the child was 2 years old and were said to have been preceded by abscesses of the elbows which were incised and drained for a prolonged period.

Roentgenograms revealed a destructive lesion of the lower epiphysis of the left tibia, complete ankylosis of the elbow joints and increased calcification of the hilar glands. The Pirquet and Mantoux tests were strongly positive. The Wassermann reaction of the blood was negative.

The cutaneous eruption about the elbows consisted of sharply defined, confluent, slightly infiltrated patches covered with a psoriasiform scale which is segmented in conformity with lichenification and nodule formation. The margins of the patches are made up of numerous coalescing discrete nodules. There is a particularly discrete group on the left elbow. Diascopic pressure revealed suggestive brown apple jelly nodules. Biopsy revealed the characteristic changes of lupus vulgaris.

DISCUSSION

DR. H. E. MICHELSON: One might speculate on the type of tuberculosis present. I think that the condition is lupus vulgaris. The lack of softening, sinuses and distribution should rule out the colliquative type of tuberculosis.

DR. MAX S. WIEN: The roentgenographic findings in this case are compatible with tuberculous arthritis of the elbows. The patient presents the type of puckered scarring in some areas that one expects to see in scrofuloderma. There is a suggestion of apple jelly nodules in the lesions over the elbows which makes one feel that one is dealing with lupus vulgaris, and histologic examination confirms this diagnosis.

APHTHAE; ACNE ROSACEA; INVOLVEMENT OF THE SCROTUM AND THIGH. Presented by DR. S. W. BECKER.

A Greek, aged 44, was first seen on Aug. 4, 1931, because of lesions which had been present on the tongue and the chin for eight or nine months.

Physical examination showed nothing significant. The Kolmer and Kahn reactions of the blood serum were negative; the urine was normal, with the exception of the presence of many white blood cells. The blood count had been normal on three occasions. A histamine test meal showed hypo-acidity amounting almost to anacidity. Studies of cultures were not made.

The patient was treated with intravenous injections of gold and sodium thiosulphate, neoarsphenamine, autohemic injections, dilute hydrochloric acid, high voltage roentgen rays administered over the cervical region and general ultraviolet irradiation for varying periods. He was fed a diet low in carbohydrates, from which nuts, chocolate and all hot and irritating foods were eliminated. All infected teeth were removed. Since Aug. 1, 1932 the patient has been studied in the clinic for allergic diseases, where he gave negative reactions to all food tests. He has received elixir of iron, quinine and strychnine, calcium gluconate, a vegetable pepsin with bile salts, quinine bisulphate, calcium, magnesium and sodium carbonate, a nonspecific substance containing albumin, lipoid and fat, pilocarpine, tincture of belladonna and calcium chlorate. The lesions disappeared and reappeared at regular intervals during the treatment.

DISCUSSION

DR. MAX S. WIEN: I think that this case belongs to the group of those that Dr. Perlstein and I described under the heading of ulcus vulvae acutum associated with lesions of the mouth, except that this is the type that occurs in the male. The patient gave a definite history of lesions in the mouth recurring from every three to five weeks. A red spot appears and becomes very painful; later a whitish area develops at the affected site which the patient says drops off and leaves a hole. This is the type of lesions one expects to see in periadenitis mucosa necrotica recurrens (Sutton's disease). This association of lesions in the mouth and on the genitalia was described by Fordyce in the discussion of cases that were shown by Fox before the New York Dermatological Society. At that time it was suggested that perhaps the lesions were a form of papulonecrotic tuberculid. The same explanation was suggested in the discussion of a similar case at a recent meeting of this society.

DR. PAUL A. O'LEARY: This patient presents an entity for which unfortunately, we, are using a variety of names. I think that the process is similar to that seen in the patient whom Dr. Wien presented before the society two years ago and whose case he subsequently reported at a meeting of the American Medical Association. I recently had under observation a man who had recurrent ulcers in the mouth and on the scrotum identical with the process as seen in the female. The term periadenitis mucosa necrotica recurrens may be another name for aphthous stomatitis; I confess that I am unable to differentiate between the two. In cases of this type which were studied histopathologically evidence of tuberculoid structure was missing. An allergic background as a cause of aphthous stomatitis is more common than aphthous lesions associated with ulcers about the genitalia. The latter condition impresses me as being the result of an infectious process similar to that of erythema multiforme or of erythema nodosum.

DR. WILLIAM ALLEN PUSEY: I think that confusion is being caused by the application of new names to an old condition of the mouth. I was interested in the suggestion that the condition on the scrotum was an analog of ulcus vulvae acutum and shall accept that; but the ulcers in the mouth which were recognized as aphthous stomatitis I regard as herpes. The condition is not a tuberculid, a tricophytid or a similar condition, but is associated with the digestive system. The patient has acne rosacea; he has acute ulcers in the mouth, and I inferred

from the method of treatment that he has had a great deal of indigestion. He presents, so far as the picture goes, the condition of aphthous stomatitis. Certainly that is the name I should use for a condition occurring in a man who has stomatitis and presumably has a disorder of the digestive tract. In a susceptible person almost any condition will produce these symptoms.

DR. OLIVER S. ORMSBY: Some cases of aphthous stomatitis run such an inveterate course that I think they are not of the same nature as the cases that are usually seen. In these patients the early lesion is a nodule which undergoes necrosis that may be deep. The lesions may persist for two or three years or longer in spite of treatment. They are very painful, and when the condition is far advanced the patients present a pathetic picture. I have seen the hemoglobin reduced to 30 per cent and the general health greatly impaired through inability to take proper food. In other cases ordinary aphthous lesions recur for years, but deep nodules and ulcers do not develop. I do not think that there is any connection between this condition and ulcus vulvae acutum. The latter is an acute short-lived condition. In some cases of nodular aphthous stomatitis, lesions occur simultaneously on the vulva, in which case they are of the same type as those seen in the mouth and bear no resemblance to the lesions of ulcus vulvae acutum. A case was recently recorded of a patient who had ulcus vulvae acutum with concurrent erythema nodosum; Bacillus crassus was found in the lesions of the genitalia and the legs, as well as in the blood.

DR. S. W. BECKER: I appreciate these suggestions. When the patient was first seen one of my assistants gave the condition the long name used by Dr. Sutton. Various treatments for tuberculosis were tried. In view of the fact that the patient had hyperchlorhydria it was thought that the condition might be aphthous stomatitis, and he was treated accordingly. After that he was sent to Dr. Huber, who said that he had success in some cases, but the patient is worse now than I have ever seen him. This discussion will encourage me to go on with the work and see what can be determined. When the patient has acute attacks he cannot sleep or eat and is a picture of abject misery; there is little that can be done for him.

SCHAMBERG'S PROGRESSIVE PIGMENTARY DERMATITIS (?). Presented by DR. E. P. ZEISLER.

A woman, aged 40, with ringworm of the toes and some erythematous patches the size of a coin on the legs and thighs was first seen in August, 1932. Since then the eruption has extended over the remainder of her body with the exception of the face.

Most of the lesions are follicular and purpuric and are aggregated in irregular patches. They have a distinct cayenne pepper appearance. There is no atrophy, and no definitely annular lesions are seen. The patient complains of moderate itching.

The Wassermann and Kahn tests of the blood serum were negative. Examination of the blood showed: erythrocytes, 4,680,000, and leukocytes, 11,600. A differential count showed: neutrophils, 71 per cent; lymphocytes, 27 per cent, and monocytes, 2 per cent. The hemoglobin was 70 per cent.

The patient complained of some distress in the upper part of the abdomen. Cholecystography gave negative findings. An Ewald test meal showed 37 per cent free acid, a total acidity of 60 per cent and no blood.

DISCUSSION

DR. H. E. MICHELSON: I presented a case much like this one before the society, and since then I have seen one other case. When the patient was shown to my confrères, they all diagnosed the condition as a peculiar form of lichen planus. A biopsy section was interpreted by a competent dermatopathologist as showing lichen nitidus with hemorrhage. I finally discovered an article by Gougerot,

which, I think, accurately describes Dr. Zeisler's case. Gougerot called the condition purpuric pigmentary lichenoid dermatitis. It was described in the first issue of *Annales de dermatologie et syphilographie* in 1868, and although the eruption was generalized, isolated areas resembled Schamberg's disease.

DR. F. E. SENEAR: Dr. Zeisler had to leave but asked me to say that he regarded the condition as Schamberg's progressive dermatitis.

DR. PAUL A. O'LEARY: Has a platelet count been made?

DR. MICHAEL H. EBERT: There is no record of such a count.

DR. J. H. MITCHELL: Was there a delayed clotting time of the blood in your cases, Dr. Michelson?

DR. H. E. MICHELSON: No, but sections were not made at different months, so it could not be known with certainty.

DERMATOFIBROSARCOMA OF DARIER. Presented by DR. F. E. SENEAR and DR. THEODORE CORNBLEET.

A corpulent woman, aged 38, presents a lesion on the right buttock which has been present for eighteen years. There is a central node almost the color of the skin which is about the size of a walnut. The node is surrounded by three satellites, each about the size of a hazelnut, of a purplish-red cast and moistened with a grumose, scanty exudate. They appeared about five months ago, one at a time, and are increasing in size. There is little scarring. The central, large node has shown no tendency to change. There was no trauma. There are practically no subjective symptoms.

The Wassermann test of the blood serum was negative. The histologic changes in one of the excised smaller lesions were those of dermatofibrosarcoma of Darier.

DISCUSSION

DR. HAMILTON MONTGOMERY: I think that the lesion is a dermatofibrosarcoma.

DR. F. E. SENEAR: I think that it is probably a dermatofibrosarcoma protuberans. The large lesion is soft, and while most of the lesions in this condition are hard, some are very soft. The patient shows one feature of this disorder in that one of the lesions is covered with intact skin while some of the smaller lesions have a bright red, almost a tomato red, covering.

DR. H. E. MICHELSON: Whenever one sees a lesion on the skin which is decidedly unusual, one thinks first of sarcoma. The patient stated that the lesion was present for eighteen years and then started to grow. I should consider malignant melanoma as a possible diagnosis. The diagnosis could be proved, of course, by microscopic examination.

DR. CLARK W. FINNERUD: The soft character of the lesion might be explained on the basis of a myxomatous type of degeneration which may be present in tumors of the connective tissue.

FURTHER REPORT ON A CASE OF IDIOPATHIC ATROPHY OF THE SKIN IN A PATIENT SHOWN AT THE DECEMBER, 1932, MEETING. Presented by DR. A. W. STILLIANS.

NOTE.—Dr. Stillians showed roentgenograms of the legs of the patient.

On the outer side of the lower half of the left leg, extending from an area near the fibula to about 0.3 cm. below the skin, were many small shadows of bone density. They were chiefly linear, measured up to 0.5 cm. in length and were arranged in lines parallel to the surface. Other shadows were oval, and one or two were shaped like a dumb-bell. Several similar oval shadows were seen about both knees. It was suggested that these shadows were due to deposits of calcium in the blood vessels which possibly occurred as a part of the process that was responsible for the atrophy.

CLEVELAND DERMATOLOGICAL SOCIETY

J. R. DRIVER, M.D., *Reporter*

Regular Meetings, Jan. 26 and Feb. 23, 1933

E. W. NETHERTON, M.D., *Presiding*

LUPUS ERYTHEMATOSUS DISSEMINATUS. Presented by DR. H. F. DE WOLF.

A white girl, aged 16, from the service of Dr. Cole and Dr. Driver at Cleveland City Hospital, presents an extensive, erythematosquamous slightly infiltrated, butterfly-shaped lesion over the nose and cheeks, with several papular and erythematous, scaly lesions on the chin, the forehead, the dorsal aspect of the fingers, the interscapular region and the right great toe. The eruption started in November, 1932, with lesions only on the cheeks. Treatment with triphal, consisting of seven injections or a total dosage of 110 mg., was given. This treatment made the lesions brighter. The smaller lesions on the face and extremities appeared after the administration of this therapy.

A roentgenogram of the pulmonary fields revealed no signs of tuberculosis. Tuberculin tests with a dilution as low as 1:1,000 were negative. A blood culture was negative. The urine was normal. The red blood cells numbered 4,000,000, and the white cells, 5,100; the hemoglobin was 75 per cent. The differential count showed: polymorphonuclear leukocytes, 51 per cent; small mononuclear cells, 39 per cent; large mononuclear cells, 2 per cent; transitional cells, 5 per cent; eosinophils, 1 per cent, and basophils, 2 per cent. The patient was afebrile.

The treatment consists of liver extract, a Gerson diet and a mildly stimulating local application to the lesions.

DISCUSSION

DR. H. J. PARKHURST: I believe that the prognosis is bad. I should suggest intramuscular injections of bismuth.

DR. H. G. MISKJIAN: Several years ago my associates and I treated a patient with a condition similar to this with iodoform pills, but I am not sure of the outcome.

DR. H. N. COLE: The patient of whom Dr. Miskjian speaks was, I believe, cured. The therapy consisted of pills containing 1 Gm. each of iodoform and mass of ferrous carbonate. This therapy was recommended by Dr. Ormsby, who advocated its use over a long period.

ACRODERMATITIS CHRONICA ATROPHICANS. Presented by DR. BENJAMIN LEVINE.

A white woman, aged 64, says that about twenty years ago she noticed a peculiar shiny condition of the skin which has become progressively worse. The skin of the feet and legs and of the region of the knees became involved first. Within the past few years similar changes have developed on the forearms.

Examination revealed that the skin of the tibia and the knees and of the extensor portions, particularly of the forearms and the backs of the hands, was atrophic. There was tissue paper-like thinness of the skin, with a pinkish to violaceous color. The blood vessels and veins were as prominent as though visualized through a transparent medium. The skin over the tibia was closely adherent; that over the extensor surface of the right forearm appeared edematous. A tumor had recently been removed from the right instep, which, on pathologic examination, proved to be a lymphosarcoma. The left breast was removed in 1924 because of an adenocarcinoma.

The Kline test of the blood was negative. The basal metabolic rate was plus 22. A blood count showed: white cells, 5,650; polymorphonuclears, 68 per cent; lymphocytes, 30 per cent, and eosinophils, 2 per cent.

A biopsy specimen taken from the leg showed few papillae. There were some edema and some fibrosis of the chorium. The most striking change, however, was the infiltration of round cells which varied from slight to considerable in some portions of the section. The round cells were in great part mononuclear; some were small, apparently lymphocytes; others were larger, resembling plasma cells, polyblasts and monocytes. One large round cell was observed in mytosis.

RELAPSING NODULAR NONSUPPURATIVE PANNICULITIS. Presented by DR. E. W. NETHERTON.

A white woman, aged 46, married, is presented because of recurrent attacks of painful subcutaneous nodules on the legs. The family and marital histories are of no significance. The patient had mumps, chickenpox and pneumonia before 11 years of age, and recurrent attacks of quinsy until four years ago, when her tonsils were removed. She had atypical rheumatism at 17. Appendectomy, cholecystectomy and hysterectomy were performed several years ago. Thirteen years ago the patient had "varicose" ulcers on both legs, and she wore elastic stockings for several years. She took quinine and salicylates for sciatica and intercostal neuralgia. In September, 1931, she began to have pain in her legs, especially when on her feet a great deal. In March, 1932, a large, painful, purple spot developed on the calf of the left leg. The leg did not swell, and there was no fever. A diagnosis of phlebitis was made, and the patient was kept in bed for several months. Since then she has had recurrent attacks of painful nodules on the legs and, recently, associated pain in the joints. As the patient lives out of town, observations have not been frequent enough for one to observe the eruption in its various stages. When she was seen on June 30, there were a few dull red, firm, well circumscribed painful cutaneous and subcutaneous nodules varying in size from that of a pea to that of a hazel-nut, on the anterior and posterior surfaces of the legs. They were easily detected by palpation. In places the skin was dimpled; this was apparently due to the formation of scars resulting from the involution of similar nodules. The nodules lasted for three or four weeks and never broke down.

The Wassermann and Kahn tests of the blood were negative. The blood count revealed 5,000,000 red cells and 6,900 white cells. The differential count revealed nothing abnormal. The hemoglobin was 78 per cent. The basal metabolic rate was —11. The spinal fluid was normal. A clinical diagnosis of sarcoid was made, and neoarsphenamine and tonic measures were instituted.

Biopsy showed that the epidermis was normal. There was an increase in collagenous fibrous tissue in the corium. There were some dilation of the vessels in the corium and a mild lymphocytic perivascular infiltration. In the fat of the subcutaneous tissue there were areas of diffuse cellular infiltration consisting of a central zone of young connective tissue cells and a peripheral zone of lymphocytes. There were several multinucleated giant cells. In places the infiltration surrounded the fatty lobules. There were no polymorphonuclear cells and no necrosis. The walls of the blood vessels showed thickening.

DISCUSSION

DR. H. N. COLE: This is a very interesting case. In differential diagnosis one would consider the possibility of erythema nodosum, of sarcoid of the Darier-Roussy type, which of course is considered by some as being closely related to erythema induratum, and of nodular nonsuppurative panniculitis, as described by Parkes Weber. In erythema nodosum there would be more evidence of a change in color. Moreover, I do not think that erythema nodosum would show the extreme histologic changes situated so deep in the tissues as we find them in the slide of the specimen. So far as sarcoid of the Darier-Roussy type is concerned, it is most unusual for the process to come and go within four weeks; moreover, I should not expect sarcoid of the Darier-Roussy type to be so painful as this condition appears to be. I think that the history and the physical appearance of the sharply

defined, infiltrated, deep nodules are very similar to those in nodular, nonsuppurative panniculitis, as described by Parkes Weber. The history that the lesions occurred sporadically suggests that we may be dealing with some infection in the blood stream. Perhaps there is some relation to infection by Koch's bacillus. I should suggest making a series of tuberculin tests, starting with a weak dilution of 1:1,000,000. Of course, if the condition is sarcoid, one will undoubtedly find anergy; that would help confirm the diagnosis. Is there a possibility of any other type of focus of infection?

DR. E. W. NETHERTON: Dr. Cole has summed up my impression concisely. When I first saw the condition, I thought of the possibility of sarcoid rather than erythema nodosum, but, as Dr. Cole stated, erythema nodosum comes and goes without causing changes in color. Erythema induratum or some type of tuberculosis may also be considered. This case does not present a febrile reaction, one of the symptoms listed by Parkes Weber; there is also no nausea, vomiting or arthritic changes. However, of all the conditions allied with erythema nodosum, erythema nodosum itself is least likely to show these symptoms markedly. Parkes Weber mentioned an article by Whitfield, who divided erythema nodosum into two types: (1) that seen in young girls and due to tuberculosis and (2) that represented by the case presented which was not due to tuberculosis. Whitfield thinks that the condition may be the connecting link between sarcoid and erythema nodosum. Undoubtedly some focus of infection is responsible. The pathologic section presented here agrees with the histologic description in Parkes Weber's article (*Brit. J. Dermat.* **37**:301 [July] 1925).

LYMPHOGRANULOMA INGUINALE: ANORECTAL SYNDROME. Presented by DR. H. F. DE WOLF.

A Syrian man, aged 60, was observed in the outpatient department of Cleveland City Hospital on Feb. 16, 1933, complaining of constipation of one and one-half years' duration, which had recently become quite severe. He was seen in the same clinic in March, 1918, when there were three small ulcers on the penis associated with a large, firm mass in the left groin. The Wassermann test of the blood was positive. Dark-field examination was not made. There was no record of antisyphilitic treatment. The patient was seen in October, when a persistent, chronic, draining bubo of the left groin was noted. The lesion was treated by incision. The patient was next observed in July, 1926. He was treated for hemorrhoids, ischiorectal abscess and chronic cystitis. Stricture of the rectum was noted. The Wassermann test of the blood was negative.

Examination showed an extensive scarred area in the left inguinal region, a diaphragm-like stricture 3 inches (7.6 cm.) above the anal orifice, which was large enough to admit the tip of the index finger. Several scars from former draining sinuses were noted about the anus. Frei tests made from two antigens were strongly positive. The Wassermann and Kline tests of the blood were negative. The blood count was normal.

DISCUSSION

DR. J. R. DRIVER: I think that there may be some doubt concerning the original diagnosis of syphilis in this case. Only one Wassermann test was made, and there is no record that the patient received treatment. The Wassermann test made in 1926 was negative and the Wassermann reaction is negative at present. The original Wassermann test was performed when the laboratory was not reliable. I think that the condition is lymphogranuloma inguinale; there is also an anorectal syndrome, with infection dating back to 1918.

DR. J. EDGAR FISHER: I should like to ask whether or not syphilis is sometimes a self-limited disease in which the cutaneous lesions disappear, and whether or not the changes in the blood under such circumstances would become normal?

DR. H. N. COLE: It is difficult to answer Dr. Fisher's question. This case is interesting from the standpoint of the changes in the blood condition that Dr.

Driver referred to. The man was in the hospital as a patient during the World War, when medical help was scarce and unreliable. I do not know where the Wassermann test was performed. Apparently a diagnosis of syphilis was made, and the patient was given a small amount of treatment. At present the serologic reactions are normal, and there is no evidence of syphilis. In a syphilitic condition of about fifteen years' duration, one would ordinarily expect some evidence of the disease after such a small amount of treatment. It is possible that the patient's condition is that now so frequently discussed, a condition in which a transient partial positive Wassermann reaction occurs with early lymphogranuloma inguinale. The patient shows a typical stricture of the rectum about 3 or 4 cm. from the orifice. This condition would formerly have been looked on as a syphiloma of Fournier. The anorectal involvement is not so frequent in male as in female patients, probably because the supply of lymph in the former extends from the genitalia to the inguinal glands. Thus far my associates and I have seen three cases of anorectal syndrome in men.

There was recently an interesting discussion on the relationship of lymphogranuloma inguinale to stricture of the rectum at the meeting of the Société française de dermatologie et de syphiligraphie (*Bull. Soc. franç. de dermat. et syph.* **39**:1303 [Nov.] 1932). Jersild has been writing on the subject since 1920; he was at first inclined to think that stricture of the rectum was due to the bacilli of Ducrey and not to syphilis, as he had seen several instances of nonsyphilitic patients with the condition in whom syphilis later developed. After the observations of Frei were published, Jersild was convinced that all of these cases were lymphogranuloma inguinale. Gougerot, on the other hand, is not so sure of the absence of a syphilitic etiology in the causation of the strictures. In all the cases we have seen the Frei reaction has been positive, and in several of them there was neither serologic or physical evidence of syphilis. It is our practice to classify all strictures of the rectum of this type as being due to the virus of lymphogranuloma inguinale.

ERYTHEMA CENTRIFUGUM ANNULARE OF DARIER. Presented by DR. HENRY C. SHAW.

On Dec. 5, 1932, a white woman, aged 31, from the service of Dr. H. N. Cole and Dr. J. R. Driver at Lakeside Hospital, delivered of a stillborn child. Immediately afterward an eruption developed on her body, which was diagnosed as erythema multiforme. Sodium salicylate was administered. There was no history of the ingestion of a drug. The patient was next seen in the outpatient department on Jan. 26, 1933. She presented a generalized eruption which she stated had been developing since December. The results of a physical examination were unimportant. A roentgenogram of the teeth failed to reveal any focal infection. There was a generalized erythematous eruption, consisting of raised, bright red, annular lesions varying in size from 1 to 10 cm. The lesions, which were clearing up in the center, left the skin hyperpigmented. The eruption was most marked on the arms and legs. Examination of the blood revealed nothing significant. The urine was normal. Roentgenograms of the chest, sinuses and teeth showed no abnormalities.

The patient has been given large doses of sodium salicylate. There has been considerable improvement in the eruption, and no new lesions have developed.

DISCUSSION

DR. H. N. COLE: Darier reported that he obtained good results in some of his patients with injections of bismuth. My associates and I have not, however, used this therapy. When we first observed the patient, the purplish tinge of the lesions gave the condition the appearance of an eruption due to phenolphthalein. There was no history of the ingestion of this drug, but we gave the patient a test dose. No exacerbation of the lesions occurred.

NEUROTIC EXCORIATIONS? Presented by DR. BENJAMIN LEVINE.

A white woman, aged 20, for a period of two years continuously had lesions which she described as small intensely pruritic vesicles, which she scratched. Subsequently they became crusted and healed, leaving a pigmented scar. The largest lesions consist of variola-like pigmented scars on the face, the shoulders, the breast, the upper parts of the arms, the buttocks and the thighs. A few recently developed, active lesions show excoriation and necrotic centers. Following an accident in an automobile two years ago, the patient was very nervous and neurotic.

The Wassermann and Kline tests of the blood were negative. The tuberculin test was negative in a dilution of 1 : 1,000. As a result of biopsy a diagnosis of chronic dermatitis with hypertrophic and atrophic changes in the surface epithelium and areas of epithelial proliferation was reported.

DISCUSSION

DR. H. J. PARKHURST: Some of the features in this case, particularly the excoriated lesions and the pigment of healed lesions, suggested dermatitis herpetiformis. However, the lesions are chiefly on areas that could be easily reached by the patient. Taking all the features into consideration, I should favor a diagnosis of neurotic excoriations.

DR. M. J. GIBANS: I believe that the condition is Duhring's disease with neurotic excoriations. It would be difficult, however, to explain the excoriations of some lesions on the back, which it would be difficult for the patient to reach.

DR. H. N. COLE: It is unusual to find such a symmetrical process in a case of neurotic excoriations. I may be wrong, but I see no reason why the condition could not be an ordinary case of acne in a neurotic person who picked the lesions. The distribution over the buttocks and thighs would not contradict this diagnosis, for, particularly in hairy persons such as this patient, acne may often be found in this area.

DISSECTING CELLULITIS OF THE SCALP (PERIFOLLICULITIS CAPITIS ABSCEDENS ET SUFFODIENS-HOFFMANN). Presented by DR. H. F. DE WOLF.

A Negro, aged 22, from the service of Dr. H. N. Cole and Dr. J. R. Driver at Cleveland City Hospital, was admitted on Feb. 18, 1933, complaining of boils on the scalp and loss of hair. The condition had started in May, 1931, as a pustule on the occipital region. An abscess which he described as almost the size of a hen's egg developed, and new lesions appeared over the scalp until there were twenty or more soft, fluctuating areas, many of which discharged a purulent material. Many of the lesions communicated with each other. There was loss of hair over each fluctuating area. Over the face and upper portion of the back there were numerous papulopustular acne-like lesions. General physical examination was otherwise insignificant.

The Wassermann test of the blood was negative. Examination of the blood revealed no abnormalities except aleukocytosis of 23,000 on Feb. 20, 1933, and of 18,300 on March 7.

Biopsy showed a layer of stratified squamous epithelium with elongated papillae dipping into the corium. There were hair follicles and sebaceous glands. Adjacent to these were an area showing cross-sections through epithelial papillae and a corium presenting hair follicles, sebaceous glands and sweat glands. There were small foci of necrosis in the epidermis which showed vacuolation and a few round and irregular, deep-staining nuclei. In some places the corium was fibrous, and nuclei were arranged in the form of basophilic stringy material; other areas were somewhat edematous, and there were a diffuse and focal infiltration of round cells and a few peripheral areas of extracellular red blood cells.

Treatment consisted of shaving the entire scalp. The fluctuating areas were incised. The purulent contents were evacuated, and small amounts of Mencière's

solution (guaiacol, 10 Gm.; eucalyptol, 10 Gm.; balsam of peru, 10 Gm.; iodoform, 10 Gm., alcohol, 100 Gm., and ether to make a liter) were injected into the abscess cavities, the same technic as is used for the treatment of chronic buboes being used (Miskjian, H. G.: *J. A. M. A.* **87**:1436 [Oct. 30] 1926). Unusually rapid healing followed this form of treatment.

DISCUSSION

DR. R. E. BARNEY: I have had a case of this interesting disease under observation for a long time. Histologic studies have shown that the disease begins as folliculitis with rupture of the wall of the follicle. I was able to find fragments of hairs in the corium; these probably act as foreign bodies. Staphylococci and streptococci have been isolated from the pus.

DR. H. N. COLE: It is interesting to record that we have seen three of these cases, all in colored people, whereas, as far as I know, all the cases recorded in the literature occurred in white people. The pathologic resemblance of this disease to dermatitis papillaris capillitii is striking. The looseness of the subcutis over the vertex of the scalp accounts for the large fluctuating areas in that region. The tendency for keloids to form following healing is also seen in the two diseases. I believe that the two diseases differ only in the areas involved.

DR. C. G. LAROCCO: At the Charity Hospital we had a patient, a girl, with this disease; she was under observation for more than two years. The condition was extremely resistant to therapy. Frequent shampooing with liniment of soft soap, U. S. P., and opening of the abscesses were the most effective forms of treatment.

DR. J. R. DRIVER: The patient with dissecting cellulitis of the scalp shown at our December meeting was treated by foreign protein fever therapy. Using typhoid vaccine intravenously he was given fifteen separate protein shocks, which resulted in a complete healing of the process with the exception of one or two areas which were rapidly regressing.

DR. H. F. DE WOLF: I discussed with Dr. Miskjian the rationale of treating the abscesses as he treated chancroidal buboes with Mencière's solution. I thought that it would be interesting to present the patient today to show the excellent results with this form of treatment.

MINNESOTA DERMATOLOGICAL SOCIETY

D. D. TURNACLIFF, M.D., *Secretary*

Feb. 1, 1933

E. Z. SHAPIRO, M.D., *President, Presiding*

PITYRIASIS LICHENOIDES CHRONICA. Presented by DR. J. F. MADDEN, St. Paul.

A plumber, aged 50, first noticed a generalized pruritic eruption covering most of the trunk in 1918. Since that time he had had many remissions and exacerbations of varied degrees. The eruption has never entirely disappeared. The patient has a generalized eruption which is more marked on the trunk, thighs and upper arms. The lesions are papules varying in size from that of a pinhead to that of a pea. Some are deep red; others are a dirty brown. The small lesions have little scale. The larger papules are covered with a fine, dry, adherent scale. The centers of some of the larger lesions appear to be depressed. A specimen taken for biopsy was shown.

DISCUSSION

DR. H. E. MICHELSON, Minneapolis: I think that the condition is pityriasis lichenoides chronica. I should like to see pilocarpine tried.

DR. S. E. SWEITZER, Minneapolis: A distinguishing feature of parapsoriasis is that the eruption looks dirty.

ADENOMA SEBACEUM. Presented by DR. J. F. MADDEN, St. Paul.

A schoolgirl, aged 11, has an eruption which she states has been present since birth and which has become progressively more pronounced. There are no subjective symptoms. The patient had a sister, aged 12, who died following an operation for tumor of the brain in 1932. The eruption of the patient is confined to the face and is more marked at the nasolabial angles and on the malar eminences. The eruption appears as fine red papules the size of a pinhead and is associated with telangiectasia. The biopsy specimen is typical of adenoma sebaceum.

DISCUSSION

DR. W. GEORGE BROCK, Rochester (by invitation): In the September, 1932, issue of *Brain* there is an interesting article on tuberous sclerosis (Critchley, M., and Earl, C. J. C.: Sclerosis and Allied Conditions, *Brain* **55**:311, 1932). Adenoma sebaceum is but one feature of this congenital developmental disease, the complete syndrome of which is characterized by glial sclerosis (with some involvement of the ganglion cells) of any portion of the cerebral cortex and often by glial masses hanging into the ventricles, producing clinically mental deficiency, psychoneuroses and epilepsy. Tumors of various internal organs, such as the kidneys, the suprarenal glands, the liver and the spleen, adenoma sebaceum of the skin or fibromas and nevi make up the rest of the picture. Patients with well developed cases showing all the stigmas of the disease are called "epiloiacs" by the neurologists. One part or variable combinations of parts of the incomplete syndrome may be present, e. g., adenoma sebaceum alone or in combination with a tumor of the internal organs or with mental deficiency or epilepsy. Critchley and Earl studied twenty-nine cases and investigated the family histories thoroughly. There were a high incidence of psychopathy in the predecessors of the patients and a relatively frequent incidence of tumors of the internal organs, considering the smallness of the group. The father of one patient died of renal tumor. Dr. Madden's case is of special interest because of the history of the death of the patient's sister from tumor of the brain (tuberous sclerosis ?).

DR. H. E. MICHELSON, Minneapolis: In a recent issue of the *Zentralblatt für Haut- und Geschlechtskrankheiten sowie deren Grenzgebiete*, Dr. Carol discussed adenoma sebaceum and emphasized the fact that this condition is merely a part of a syndrome in which tuberous sclerosis is constant. Adenoma sebaceum and Recklinghausen's disease should be compared; both are widespread developmental conditions.

DR. J. F. MADDEN, St. Paul: Two years ago I had a patient with adenoma sebaceum who was brought from a home for the feebleminded and who remained in coma until death. Multiple tumors of the brain were found at autopsy.

PYODERMIA. Presented by DR. J. F. MADDEN, St. Paul.

A white student, aged 18, stated that glands with a chronic suppurating discharge were removed from his neck eight years ago. About two years ago superficial ulcers appeared on the calves of both legs. They slowly progressed to the present size. His personal hygiene is extremely poor. He presents confluent and discrete, superficial ulcers, varying in size from that of a dime to that of a quarter, which are covered with a dirty crust. When the crust is removed the ulcers seem to be wells of pus. There are associated atrophic scars resulting from the spontaneous healing of other ulcers. The eruption covers the middle third of both legs. There are numerous healed atrophic scars on the lateral and posterior surfaces of the neck.

The family history is negative for tuberculosis. The Mantoux test gave negative results. X-ray pictures of the chest showed no abnormalities. The Wassermann reaction of the blood is negative. The urine is normal. The blood findings, including the blood sugar are normal. The ulcers are healing rapidly with wet packs of surgical solution of chlorinated soda.

DISCUSSION

DR. J. F. MADDEN: Dr. Michelson is treating a patient with a similar condition; the eruption is not healing as readily as in this patient. The condition presented was previously thought to be erythema induratum, and the cervical adenitis was thought to be due to tuberculosis. It has been pointed out that a number of cases of cervical adenitis that were diagnosed as scrofuloderma and that appeared as such were really pyogenic infections in patients who did not observe hygienic measures. This boy is mentally defective, his hygiene is poor, and he is extremely susceptible to pyogenic infections. Neither he nor his family shows evidence of tuberculosis.

DR. H. E. MICHELSON, Minneapolis: In view of the type of lesion and the microscopic sections, I should make a diagnosis of serpiginous ulcerating pyodermia as described by Zurhelle.

ARGYRIA. Presented by DR. J. F. MADDEN, St. Paul.

A mechanic, aged 55, stated that he consulted a physician in 1919 because of epigastric pain. A diagnosis of gastric ulcer was made, and the patient was given capsules of argyrol to be taken orally. He took one capsule three times a day for three or four months in 1919. No argyrol or silver compound has been taken since then. His friends noticed that his skin was changing color in 1921 and 1922. The color has become progressively more pronounced.

The entire skin of the patient has a generalized bluish-gray or slate blue color, which is much more intense on the surfaces exposed to light. A thorough general examination, including blood pressure readings, revealed no abnormal condition. Biopsy showed a metallic deposit in the connective tissue and about the blood vessels of the corium.

DISCUSSION

DR. L. A. BRUNSTING, Rochester: The diagnosis of argyria seems definite. Hoffman's method of demonstrating silver in the tissue by dark-field illumination is instructive. Sections of from 5 to 8 microns in thickness are cut and are stained lightly with polychrome methylene blue (methylthionine chloride, U. S. P.). Luminous crystals of silver are seen deposited chiefly around the sweat ducts and, in the more severe cases, around the blood vessels.

EPITHELIOMA BEGINNING AT THE AGE OF 14. Presented by DR. J. F. MADDEN, St. Paul.

A student, aged 20, noticed a nodule in the skin over the left malar eminence six years ago. The lesion grew slowly until it reached the size of a dime about two years ago. Then an ulcer the size of a pinhead appeared in the center and spread over most of the nodule. The lesion has been growing rapidly during the past two months. Biopsy showed a mixed cell carcinoma.

DISCUSSION

DR. H. E. MICHELSON, Minneapolis: This case is extraordinary because of the age of the patient. The youngest patient with cancer of the skin whom I have seen was a girl aged 13. She was treated with irradiation. Dr. Goeckerman stated that the youngest patient with cancer of the skin at the Mayo Clinic was 20 years of age.

CARCINOMA OF THE PENIS. Presented by DR. J. F. MADDEN, St. Paul.

A laborer, aged 38, noticed a papule the size of a pea, with an ulcerated center, on the right side of the glans penis in December, 1932. The lesion grew rapidly. At the time of admission to the hospital, on Jan. 21, 1933, the patient was unable to retract the prepuce. An indurated, ulcerated nodule of cartilaginous hardness involved the right half of the glans penis. The inguinal lymph glands were not palpable. A diagnosis of carcinoma was made, and a dark-field examination was advised as a precautionary measure. The laboratory reported that the dark-field examination gave a positive reaction for Spirochaeta pallida.

Treatment for syphilis was given in the form of three injections of neoarsphenamine (average dose, 0.45 Gm.). The lesion did not change. Biopsy revealed a highly malignant squamous cell carcinoma. The Wassermann test of the blood gave negative results throughout.

DISCUSSION

DR. PAUL O'LEARY, Rochester: I believe that the relationship between kraurosis of the penis and carcinoma which develops thereon is worthy of emphasis. This patient has had a rather marked degree of kraurosis for his age.

DR. L. A. BRUNSTING, Rochester: Will the relative youth of the patient and the presence of glands in the inguinal region have any bearing on the type of treatment to be used?

DR. J. F. MADDEN: An arrangement has been made whereby patients with carcinoma of the penis are transferred to Dr. Foley, who gives such treatment as he sees fit. His choice of treatment seems to be about the same as Dr. Wright has mentioned. In this case the thing that is considered of importance is the report of the positive results of the dark-field examination. The tendency is to accept laboratory reports at their face value, but this instance emphasizes the necessity of making one's own dark-field examinations or of having a responsible person make them. During the four weeks that this patient was seen there has been no change in the appearance of the lesion.

DR. H. E. MICHELSON, Minneapolis: Most cases of cancer of the penis that I have seen have been in older men. It has been the experience of the cancer institute that patients with cancer in this location delay treatment even more than those with cancer of the lip. The prognosis, I believe, is not good.

NODULO-ULCERATIVE TERTIARY SYPHILIS OF THE LEGS. Presented by DR. J. F. MADDEN, St. Paul.

A farmer, aged 71, said that he had not had a venereal infection. He entered the hospital six months ago because of decompensation and ulcers of the legs. The ulcers have been present for fifteen years. The entire surface of the legs from the knees to the soles is covered with ulcers and scars. The ulcers are sharply punched out, discrete and confluent lesions the size of a dime, which tend to form polycyclic outlines. There are many atrophic scars of healed ulcers and marked edema of both legs. The diseased heart was diagnosed as syphilitic aortitis. The Wassermann reaction of the blood was 4 plus. The patient received no treatment for syphilis before entering the hospital.

DISCUSSION

DR. L. A. BRUNSTING, Rochester: In addition to the typical lesions of tertiary syphilis on the legs, there is a discrete ulcer on the sole, which is without an inflammatory reaction. It is rather deep, has clearcut margins and suggests a mal perforant. I recently saw an elderly man with nodulo-ulcerative syphiloderm involving the entire left leg in the manner seen in this patient. Over the middle third of the shin there was considerable crusting which on biopsy was

found to be squamous cell epithelioma. The patient had not received treatment either with roentgen rays or with arsenic.

DR. PAUL O'LEARY, Rochester: In a recent study it was found that late cutaneous syphilis was associated with cardiovascular involvement in 9 per cent of the cases, although the incidence of late cutaneous syphilis in association with visceral involvement was 45 per cent. This is somewhat in contradistinction to the former teaching that cutaneous syphilis offers immunity from involvement of the cardiovascular or of the central nervous system.

LICHEN NITIDUS. Presented by DR. S. E. SWEITZER, Minneapolis.

A colored girl, aged 12, presented lesions of two months' duration. They began in the antecubital spaces and gradually progressed up and down the arms. The Mantoux and Wassermann reactions were negative. Roentgenograms of the chest showed no evidence of pulmonary tuberculosis. The mother of the patient has erythema induratum, and one brother has pulmonary tuberculosis. Examination revealed hundreds of smooth, glistening, discrete papules the size of a pinhead on the arms, especially the flexor surfaces. The skin was normal otherwise. Biopsy showed lichen nitidus.

DISCUSSION

DR. S. E. SWEITZER: Lichen nitidus was first described in 1907 by Pincus. In making a differential diagnosis in white persons, one must consider lichen planus, lichen nitidus and flat warts. This patient's skin is black, and a diagnosis was not made at once. Biopsy showed definite lichen nitidus. A medical student whom Dr. Michelson presented several years ago had an eruption on the forearms. The case was shown before the American Dermatological Society, and some of the members were skeptical in regard to the diagnosis.

DR. H. E. MICHELSON, Minneapolis: Lichen nitidus is a condition in which a microscopic diagnosis is permissible. In the case presented Dr. Sweitzer thought that the tissue resembled that of localized amyloidosis. The fact that the mother of the patient has tuberculosis is worthy of note, although I have not been able to classify lichen nitidus as a tuberculid.

A CASE FOR DIAGNOSIS (ACRODERMATITIS CONTINUA, PUSTULAR PSORIASIS [HALLOPEAU]). Presented by DR. H. E. MICHELSON, Minneapolis.

A white man, aged 66, had an eruption on the arms and legs for the past seven years. For the past two years exacerbations of the eruption have been accompanied by periods of chills and fever lasting about two weeks. The lesions consist of sharp-bordered erythematous plaques covered with a heavy white scale and many superficial pustules. Healing is accompanied by some slight atrophy. The Wassermann reaction was negative.

DISCUSSION

DR. PAUL O'LEARY, Rochester: It is unfortunate that the term pustular psoriasis has been adopted in referring to this disease because of the additional confusion that it creates. Dr. Michelson mentioned the relationship between pustular psoriasis and acrodermatitis continua of Hallopeau. It is my impression that the diseases are closely related in the sense that they are both infectious. Systemic involvement is a common accompaniment of acrodermatitis continua of Hallopeau. In my experience, slightly less than one fourth of the patients with psoriasis vulgaris have associated arthritis, and, although I realize that pustular psoriasis is a rare disease, I have found no reference to the existence of arthritis in association with it. It would seem that pustular lesions with an etiologic basis similar to psoriasis would readily be a focus for the development of involvement of the joints.

DR. S. E. SWEITZER, Minneapolis: The lesions on the arms look more like acrodermatitis continua of Hallopeau because the edges have loose borders and there is considerable pus. Acrodermatitis continua of Hallopeau usually starts on

the extremities, generally following trauma of some kind, and the eruption spreads by extension. In pustular psoriasis the intra-epidermal pustules and lesions are frequently glistening, and some of the areas show a considerable number of silvery scales, but these are not the same as the scales in acrodermatitis continué. I am inclined to believe that the condition is pustular psoriasis.

DR. L. A. BRUNSTING, Rochester: The history of constitutional reactions consisting of chills and fever is consistent with acrodermatitis continué. Microscopically, the sections reveal no atrophy, although clinically there are certain regions of definite wrinkling and loss of the normal structure of the skin. It would be advisable to have further cultural and histologic studies made.

ARSENICAL DERMATITIS AND SECONDARY SYPHILIS. Presented by DR. H. E. MICHELSON, Minneapolis.

A white man, aged 29, contracted syphilis in May, 1932. Treatment was begun on the appearance of the secondary eruption. After about one month of therapy the patient discontinued treatment. In October deafness, vertigo, blurring of vision and a macular eruption developed. After intramuscular injections of bismuth the condition improved. Following the administration of a small dose of neoarsphenamine an eruption again appeared, which has persisted. The patient has had no arsenical therapy since early in December. The eruption has gradually become generalized, and it is extremely pruritic, verrucous, papular and hyperpigmented. A bright red macular eruption is now superimposed. There has been some improvement under treatment with sodium thiosulphate. The Wassermann reaction was positive. Biopsy was performed.

DISCUSSION

DR. PAUL O'LEARY, Rochester: A neurorecurrence of this type is a frequent accompaniment of an insufficient amount of the arsphenamines rather than being caused by the drug itself. It follows the administration of one or two doses of the drug in a person in whom an early stage of neurosyphilis has already appeared. Another point is the frequency with which reactions of this type follow the use of neoarsphenamine rather than old arsphenamine. Arsenical dermatitis with pigmentation complicates the picture and, particularly, the subsequent treatment. If the patient can tolerate other metals, such as bismuth, for example, I believe that he should receive intensive treatment with this drug before resort is made to fever therapy.

DR. S. E. SWEITZER, Minneapolis: In spite of Dr. O'Leary's extensive experience with arsphenamine, I think that most physicians have to give neoarsphenamine. I do not think that this case has anything to do with neoarsphenamine. The treatment was allowed to lapse for six months; the patient simply took a vacation from the treatment, and it was tragic for him. I was interested in the lichenoid eruption that followed neoarsphenamine therapy.

DR. C. D. FREEMAN, St. Paul: I believe that in such cases the individual plays a large rôle, and that the reaction is not necessarily caused by the arsenic per se. Some time ago I presented before this society a woman in whom severe neoarsphenamine dermatitis developed. She recovered from the dermatitis but lost one arm as the result of a thrombotic process. She latter had a relapse of syphilis. Following an injection of mercury salicylate a similar dermatitis developed, which was less severe. The treatment of the patient presented a problem. She became discouraged and tried to forget her troubles by drinking moonshine. An exfoliative dermatitis again developed. Thus three different toxic substances produced practically the same reaction of the skin.

DR. L. A. BRUNSTING, Rochester: In addition to the lesions that have been described there is diffuse generalized erythema. This may be dermatitis due to arsphenamine, although the possibility of irritation due to external factors, such as a strong ointment, should not be overlooked.

DR. J. F. MADDEN, St. Paul: I saw the patient two days ago. There has been a marked change since that time.

DR. H. E. MICHELSON: We have observed this case carefully and after repeated biopsies and therapeutic tests have concluded that the eruption resembles lichen planus due to arsenic. Such cases are occasionally reported but are extremely rare. It makes one wonder whether lichen planus is a real entity, for this eruption cannot be differentiated clinically and microscopically from any other case of lichen planus; yet one is able to increase its severity by an injection of arsenic, and the response to sodium thiosulphate is striking.

NEW YORK ACADEMY OF MEDICINE, SECTION OF DERMATOLOGY AND SYPHILIS

A. BENSON CANNON, M.D., *Chairman*

Regular Meeting, Feb. 7, 1933

LOUIS CHARGIN, M.D., *Secretary*

PARAPSORIASIS VARIOLIFORMIS. Presented by DR. LEO SPIEGEL.

A man, aged 52, an artist, came to the Clinic of the Lenox Hill Hospital on Jan. 23, 1933, with an eruption of six months' duration. There were no subjective symptoms. The eruption involved the trunk and the extremities. The mucous membranes, face, palms and soles were free from lesions. Examination showed a profuse, discrete, polymorphous eruption in various stages of evolution and involution, consisting of pinkish macules the size of a pinhead and slightly larger and papules ranging from pink to reddish brown and varying in size from that of a pinhead to that of a split pea. Some of the papules were topped by a fine scale which was readily removable. There were other purplish lesions which on involution left a slightly pigmented scar the size of a split pea. There was no evidence of the formation of vesicles. The Wassermann reaction was negative, and there were no symptoms of syphilis. The Mantoux tuberculin test gave negative results. The blood count was normal.

DISCUSSION

DR. LEO SPIEGEL: Unfortunately, another patient with parapsoriasis guttata whom we expected did not appear this evening, so that we cannot contrast the various lesions. This case is somewhat similar to the one presented by Dr. Gross. There are numerous pea-sized, violaceous macular lesions scattered over the trunk, which on involution leave superficial scars. The biopsy specimen was suggestive of a papulonecrotic tuberculid. Dr. Riordan has some of the microscopic sections.

DR. T. J. RIORDAN: Except for a small area of atrophy, about two thirds of the section is approximately normal. At one end a large, well circumscribed infiltration beneath the epidermis certainly can be interpreted as a picture of papulonecrotic tuberculid.

DR. SIGMUND POLLITZER: I should corroborate what Dr. Riordan has said. After a rather brief examination of the slide, I should say that the condition is the picture of papulonecrotic tuberculid.

DR. MARION B. SULZBERGER: The finding of a tubercle in the histologic section in this case is particularly interesting in connection with the fact that tuberculosis has been so frequently accused of being an etiologic factor in pityriasis lichenoides. This finding also recalls an interesting case presented by Dr. Sharlit before this section, in which clinically typical parapsoriasis appeared following injections of tuberculin.

DR. PAUL GROSS: Unless the structure of the tuberculid referred to by Dr. Riordan shows specific granulation tissue, his report might corroborate the diagnosis of parapsoriasis varioliformis.

LYMPHANGIOMA CIRCUMSCRIPTUM. Presented by DR. LOUIS TULIPAN for DR. H. SAUNDERS.

A youth, aged 17, gave a history of having had an eruption on the left lumbar region since birth. Two and a half months ago a nonpainful swelling appeared beside the eruption. The patient presents a crusted lesion with edema of the skin on the right side, on the surface of which are pea-sized papules.

DISCUSSION

DR. LOUIS TULIPAN: This patient presents a group of translucent, firm vesicles resembling herpes zoster on an indurated base. He gives a history of having had the lesion since childhood. Three months ago he noticed a swelling on the right side, which he says was not tender. When I saw the mass six weeks ago, it was the size of a hen's egg, boggy and not fluctuating, and the skin covering it was bluish red. I considered that this boggy tumor was solid edema due to lymphatic varicosities.

DR. HERRMANN FEIT: I agree with the diagnosis as presented. The underlying mass is probably a lymphangioma cavernosum. The heavy crusting does not fit in with the picture and must have been caused artificially. Have the roentgen rays been used? What were the microscopic observations?

DR. LOUIS TULIPAN: There is a case recorded in "Ikonographia dermatologica" which is almost the exact duplicate of this one.

DR. T. J. RIORDAN: The picture is about the same as that in the case Hutchinson reported. The pathologic changes consist of pools of lymph in irregular spaces in the corium; the angiomatous part is questionable, as vessel walls are not present.

DR. MARION B. SULZBERGER: The crusting in this case is probably due to a drying of the discharge beneath the bandages which were applied after a biopsy specimen was taken. In such cases it is interesting to note that the lymphatic discharge, which may be extremely profuse, is often of the nature of chyle. When lymphangiomas on the thighs and on the abdomen, as well as those on other parts of the body, break down, they frequently exude a fluid which changes like chyle, according to the stage of the digestion. During the ingestion of fat the fluid is white and is filled with an emulsion of droplets of fat. This points to an aberrant communication with the lymphatics of the gastro-intestinal tract or with the thoracic duct. Any of the members who are interested in this phenomenon will find it described (with observation obtained at autopsy) by Ning (*Dermat. Wchnschr.* **36**:1389 [Sept.] 1931).

DR. CHARLES WOLF: On inspection of the lesions, I noticed a slight erythema, and it immediately occurred to me that the patient had received treatment with the roentgen rays, and that a reaction had perhaps taken place. When statements are not made in accordance with facts, I think that they should be corrected. On February 3 the patient received a dose of roentgen rays at Bellevue Hospital. The redness is probably not due to the roentgen therapy but to the infection.

DR. SIGMUND POLLITZER: This condition was described about fifty years ago by Jonathan Hutchinson, under the name of lupus lymphaticus. It consists in a dilatation of the lymph vessels, and it is almost invariable that a deep subcutaneous lymphangioma is associated with the superficial lesion.

DR. ISIDORE ROSEN: I should like to emphasize the importance of not taking a biopsy specimen from patients with lymphangiomas because occasionally the lymph vessels are opened up, and there is a continuous flow of lymph from the wound which retards healing and may lead to the formation of a sinus.

PSORIASIS (?). Presented by DR. BOLESLAW LAPOWSKI.

This patient was presented before the Manhattan Dermatologic Society on Oct. 8, 1929, with the diagnosis of lupus erythematosus.

DISCUSSION

DR. JOSEPH J. ELLER: The patient has an interesting history. Three years ago I saw her at the clinic, and the lesions on the face and the left hand were clinically diagnosed as lupus erythematosus. A section for microscopic study was taken from the lesion on the thumb and was diagnosed as lichen planus by Dr. Satenstein. A short résumé of the history since then shows that the eruption involving the lips resembled erythema multiforme; it began as a fissure, and spread quickly, first to the lower lip and then to the upper. When the patient was presented before the Manhattan Dermatologic Society there was a raw, oozing surface. In June, 1930, there was an erythematous, dry and scaling eruption on the left inner canthus and the left infra-orbital region. It was found to be aggravated during the menstrual period. There was no history to suggest that the eruption was due to a drug. The patient used various local remedies and the grenz rays for the lips. Intramuscular injections of calcium gluconate and fifteen of triphal were given. There has been no change in the condition of the lips. In spite of the fact that the lesions on the left thumb were diagnosed as lichen planus, a clinical diagnosis of lupus erythematosus was made at the Manhattan Dermatologic Society, and at this meeting, on account of the eruption on the lips, which has persisted, a diagnosis of erythema multiforme bullosum was also considered.

DR. ISIDORE ROSEN: I saw this patient a few years ago, when I had the opportunity of watching the clinical course of the lesions and studying them microscopically on a number of occasions. From these findings a diagnosis of lupus erythematosus was decided on. The clinical appearance of the lesions is still that of lupus erythematosus. The atrophy, the color, the adherent scales and the involvement of the lips and scalp favor such a diagnosis.

DR. LOUIS CHARGIN: The points that have been brought up are a sufficient indication that the process is lupus erythematosus, and I agree with that diagnosis.

DR. BOLESLAW LAPOWSKI: The question of the absence or the presence of scars at the site of past lesions apparently is disputed. The lesion behind the ear (in the scalp) is not a scar but a patch of psoriatic lesions in the form of a ring, giving the impression of a depression in the center. All of the speakers have admitted that no scars were present around the eyes in spite of the fact that the lesions had been present for a number of years and had disappeared with the application of from 5 to 10 per cent ammoniated mercurial ointment. The lesions are reappearing in some of the locations around the eyes, which is not unusual in lupus erythematosus. The patch on the back is typical psoriasis.

PEMPHIGUS. Presented by DR. BOLESLAW LAPOWSKI.

This patient was previously presented before the section on May 1, 1929, by Dr. A. Benson Cannon.

DISCUSSION

DR. ISIDORE ROSEN: This patient was in the wards of the Mount Sinai Hospital with vegetating lesions around the nose and pubic region, together with bullous lesions in the oral cavity and on the trunk. The question of an eruption due to a drug was entertained at the time of admission, but that was ruled out after the patient had been observed a number of weeks and a diagnosis of pemphigus vegetans had been made. I still believe that the patient is suffering from pemphigus vegetans, although at this time there are no bullous lesions on the trunk.

DR. A. BENSON CANNON: During our entire observation of the case, it seemed typical of pemphigus. We can see no reason to change our diagnosis because of

the patient's recovery. We felt that we could explain the pigmentation of the skin by the injections of arsenic that he received. I think that physicians were formerly inclined to believe that all cases of pemphigus were fatal, and that if any patient recovered, this fact proved that the case was not one of that disease. I believe that the more modern conception of the disease is that persons suffering from it do recover. I have records of five or six patients who presented classic signs of the disease and who were cured. We occasionally see similar reports of cases by other physicians in which the patients were cured.

DR. BOLESLAW LAPOWSKI: The classification of pemphigus, especially of pemphigus vegetans, is at present debatable. Reports of many cases which are considered to belong to the group of pemphigus vegetans have been published under various titles. In order to classify a case of pemphigus vegetans properly, certain questions must be answered, namely: 1. Were bullae present? 2. Were the contents of the bullae vesicular or pustular? 3. Did the vegetations appear on the floor of the bullae? 4. Did bullae or vesicles appear around the border of the lesion? 5. Did bullae or vesicles appear on each subsequent attack? 6. What was the nature or the course of the disease? (This is very important.)

Especially by the course of the disease can one know whether or not a case belongs to the group of pemphigus vegetans, which includes the following conditions: (1) Neumann's disease, with a lethal course; (2) Hallopeau's disease, with a benign course, and (3) dermatitis herpetiformis vegetans.

In view of the fact that the patient has been from the beginning of the eruption to the present (a period of five years) under the observation of known local dermatologists, from whom I should expect a clinical description of the lesions noted during the development and course of the disease, I consider that the case I presented this evening affords the best opportunity to elucidate the disputed points in the differential diagnoses of the various types. Unfortunately, the speakers did not give a description of the lesions, only diagnoses, and they enumerated various remedies which they used for treatment.

Only one point was elucidated, namely, that the first appearance of the lesions was on the mucous membranes, and that the red spots of the skin were not due to phenolphthalein as suggested by one of the speakers, since the trial administration of phenolphthalein by Dr. Cannon did not reproduce the lesions.

My own observation is that the eruption manifested itself differently in two periods: (1) For a short time the lesions developed in a peculiar manner, with no bullae; (2) the second period began in the middle of 1931 and has lasted up to the present (for nearly two years). During that time no bullae were noted on the body. The following conditions were observed: On the forehead, nasolabial region, chin, ears, scalp and umbilicus the eruption was elevated, moist, red and sharply outlined, and formed granulating, tumor-like masses varying in size from that of a pea to that of a dime.

On the entire body, brownish pigmented patches of various sizes were noted, the remains of previous lesions. On the thighs there was cigaret paper-like atrophy of the skin; on the mouth, cheeks and throat there were a number of pea-sized abrasions.

Twenty months later (in the meanwhile the patient was under the observation of another physician) he returned with practically the same conditions. He was treated with local applications of sulphonated bitumen, N. F., brilliant green and potassium permanganate solution. The lesions improved.

The primary lesion consisted of pinhead-sized oozing points on a slightly reddened surface. The lesions gradually increased in size, and the oozing eventually dried up in a fine pellicle which on removal showed an erythematous, oozing, slightly elevated surface.

Adjacent lesions gradually combined, forming larger patches, but there was no serpiginous arrangement of the lesions, and little, if any, itching. The pellicle cracked as it dried; while it was adherent it could easily be raised, the oozing surface thereby being exposed. Gradually infiltrated, elevated, granulating tumors developed on the sites, as previously described. These were noted on the chin,

nose and ears. On the mucous membranes of the soft palate and the anterior pillars of the fauces were scattered millet-sized oozing points, with red borders, similar to those on the skin. Some of the points were combined in patches and some in groups, but there was no evidence of bullae. The lower lip, mucous surface and corners of the mouth showed dark bluish and black pigmentations.

DR. LOUIS CHARGIN: I agree with the previous speakers that we are dealing with a type of pemphigus. It is not so rare for patients suffering from this condition to present a course like this; such patients improve or the condition becomes aggravated with or without treatment. Unless Dr. Lapowski has some other diagnosis to offer, there seems to be nothing special to discuss so far as the diagnosis is concerned.

ECZEMA. Presented by DR. LEO SPIEGEL.

A man, aged 71, a shoemaker, born in Ireland, stated that he was treated for his present eruption some weeks ago at another clinic, for which he received applications of a tar ointment. He was first seen at the clinic of the Lenox Hill Hospital on Dec. 15, 1932. He complained of intense itching. His underclothing was greasy and impregnated with a tar ointment. Examination showed a profuse, discrete papular eruption varying in size from that of a pinhead to that of a pea or larger on the lower parts of both legs. Many of the lesions were topped by hard and verrucous crusts; others were smooth and varied from red to violet. On the left leg the lesions assumed an unusual and peculiar linear formation which extended in one continuous line, about ½ inch (1 cm.) in width, from the heel to the gluteal fold. The eruption has responded to therapy, and many of the lesions have undergone involution. Depigmented areas are now present. The linear lesion has improved considerably, but many of the papules are still in evidence. The microscopic picture is not that of lichen planus, but shows mainly inflammatory changes in the papillary layer.

DISCUSSION

DR. OSCAR LEVIN: The history of this patient reminds me of a case I saw at the City Hospital in 1915 with the late Dr. Gottheil. It was that of a patient who was admitted with acute dermatitis and in whom, within five days, a generalized typical eruption of lichen planus developed, revealing a linear distribution of the lesions. As for the distribution of the lesions, I may mention another case I saw several years ago at the Cornell University Medical College and Clinic, of a woman who showed linear lichen planus extending from the buttocks to the heels. In this patient the characteristic lesions of lichen planus were observed, and the histologic observations corroborated the clinical diagnosis. I offered a diagnosis of lichen planus linearis in the case of the patient presented.

DR. MAX SCHEER: I think that the case is one of typical lichen planus verrucosus linearis.

DR. SIGMUND POLLITZER: When this man was first seen he had acute dermatitis involving the legs and presumably due to a tar salve he had applied. As the dermatitis subsided, a linear verrucous lesion extending in the midline of the posterior surface of the calf and thigh, from the ankle to the buttocks, was observed. It seems to me inconceivable that a lesion of this character and distribution should be anything but a linear nevus.

The histologic picture of lichen planus is unsuitable. Dr. Riordan, who examined the sections, tells me that this condition is not lichen planus. It is possible that a linear nevus which had been present since infancy escaped notice until it became more marked after the acute process which brought the patient to the clinic had subsided.

DR. MARION B. SULZBERGER: This type of case almost invariably leads to the question of differential diagnosis between linear dermatitis of the neurodermite type, linear nevus and linear lichen planus. A decision as to the proper

diagnosis in such cases requires long study and observation. In many cases one finds a combination of the manifestations which typify the three diseases, and an ultimate decision is impossible. I recall a similar case in Zurich, occurring in an inmate of a psychiatric asylum, in which, in spite of the opportunity for repeated biopsies and a long period of observation, we could arrive at no definite classification.

DR. LEO SPIEGEL: This patient was treated at some other clinic. When he came to us his underwear and the extremities were covered with a tar ointment. Although the lesions in some areas suggested hypertrophic lichen planus, especially in the linear lesion, I was of the opinion that the condition was a dermatitis due to tar. The patient was well aware of his condition and insisted that the entire eruption appeared at one time. I do not believe that the condition is a nevus. When the first biopsy revealed no histologic structure of lichen planus, it was thought that a typical lesion had been missed, but the second biopsy gave similar results.

SCLERODERMA (DIFFUSUM, ASSOCIATED WITH MORPHEA). Presented by DR. FRANK VERO.

A Norwegian woman, aged 44, was first seen on Dec. 13, 1933, with large hypertrophic scars on the neck from a severe burn which had occurred when she was 2 years old. She had pneumonia twelve years ago. During the past five years she has gained 50 pounds (22.7 Kg.). The face has been flushed for the past two or three years. The present condition began on the left forearm and gradually spread to the back, chest and lower extremities.

On the volar surface of the left forearm there is an oval-shaped reddish-yellow raised lesion, 1 inch (2.5 cm.) long and ½ inch (1.3 cm.) wide, surrounded by an erythematous bluish area. The lesion is markedly indurated. On the back and shoulders there are numerous solitary and grouped lesions varying in size and shape; they are similar to the lesion on the arm. The lesions on the shoulders are markedly raised; those on the back presented only a bluish, reddish discoloration and slight induration. Similar lesions are visible on the breasts and the abdomen. On the anterior tibial surfaces of the lower extremities, extending from the knees to the ankles, are symmetrical, waxy yellowish bandlike plaques. The skin is hidebound and cannot be folded. On the borders there is a bluish, lilac-colored discoloration 1 by 1.5 cm. wide. The face, nose, cheeks and forehead are reddened and bluish, and show numerous papules and telangiectases.

The patient has received only pancreatin, 5 grains (0.325 Gm.) three times a day. Pronounced involution of the lesions on the backs of the legs has occurred.

The histologic diagnosis was scleroderma.

DISCUSSION

DR. FRANK VERO: This patient was given pancreatin and a low caloric diet. Her condition improved considerably. She lost 23 pounds (10.4 Kg.) during six weeks of treatment. The hard elevated lesions on the left arm and the back became softer and underwent involution. The diffuse, hard, inelastic cutaneous lesions on the lower parts of the legs were similarly improved. Pancreatin and raw pancreas were first advocated by Sellei as treatments for scleroderma. He presented before the Dermatological Society of Budapest several cases of scleroderma of many years' duration, in which after a few months of medication with pancreas the patients were either cured or vastly improved. In the Vanderbilt Clinic we have for the past year and a half treated about nine patients with scleroderma with this therapy, and the results are encouraging. In addition to pancreatin and the raw pancreas, I have also used a new pancreas hormone.

DR. MARION B. SULZBERGER: According to my impression, one must differentiate as sharply as possible between two types of scleroderma. One type is known as generalized scleroderma or sclerodactylia; it is progressive, is usually refractory to all therapy and often ends fatally. This type usually begins on the dorsa of the fingers and on the nose. The other type, which may also be generalized and affect large portions of the surface of the body, seems to be an

entirely different disease. It is frequently known as morphea. In this form, spontaneous and rapid cure is not unusual, and many strikingly rapid cures follow varied therapeutic measures. In an evaluation of any new form of therapy, it is necessary to be careful in distinguishing between the two types.

Joseph Sellei points to the necessity of a differential diagnosis in his article in the *Münchener medizinische Wochenschrift* (**79**:1625 [Oct. 7] 1932), and that in the *Dermatologische Zeitschrift* (**64**:138 [July] 1932).

DR. FRANK VERO: The new hormone that I have used is an inner secretory hormone of the pancreas. Its most important action is its vasodilator effect on the smallest vessels of the skin and muscles. Following the intramuscular injection of this hormone there is an increase in the peripheral circulation and in the temperature of the cutaneous surfaces, as shown by Dr. Smith's measurements in the clinic for vascular diseases of the Presbyterian Hospital. This hormone has been used mainly in Germany for vascular diseases, i. e., arteriosclerotic and diabetic gangrenes and thrombo-angiitis obliterans (Buerger's disease). Excellent results were reported in Raynaud's disease, for which the hormone is considered a specific. Most of our patients who received injections of Padutin felt well during the winter months, whereas prior to the injections they suffered greatly at the onset of cold weather.

DERMATITIS EXFOLIATIVA. Presented by DR. EUGENE F. TRAUB.

A boy, aged 2 years, has suffered from his present trouble since the middle of October, 1932. For more than a year, he has had a slight thickening of the palms and soles and the nails. The nails showed a tendency to turn up at the ends. The skin in general, however, was clear until October 10, when a physician was consulted because of a diaper rash. Following the application of the medication prescribed, a generalized eruption occurred which has persisted. Because of the appearance of the hands and feet, the marked thinning of the hair of the scalp and the profuse scaliness, the possibility of ichthyosis with secondary dermatitis was at first considered. An examination of the urine for lead and arsenic was made. When both were found, the mother was more carefully questioned. It was discovered that the child had eaten a great deal of the paint off his crib and play yard. Samples of paint from both these sources and scales taken from the child were examined for arsenic. The scales taken from the abdomen contained 1,650 mg. of arsenic per hundred grams of dry substance, and the urine, 0.254 mg. The urine also contained 0.095 mg. of lead per liter. Both samples of paint consisted of high concentrations of lead. No arsenic was found in the paint from the crib, but the paint from the play yard contained 0.02 mg. of arsenic per hundred grams of solid substance.

An examination of the nose and throat revealed large and infected tonsils. The child's skin was exceedingly red, as though he had been dipped in boiling water, and there was diffuse scaling over the entire body. In a few areas there was oozing. The palms and soles were thickened, covered with scales and, in areas, showed a tendency to become fissured. Local medication gave only moderate relief. The child has improved materially in the last few days owing to the injection of sodium thiosulphate in tablet form.

DISCUSSION

DR. EUGENE TRAUB: A number of unusual and interesting features about this case are worth emphasizing. Although both parents are above the average in intelligence, the history as presented was obtained only after much questioning, and after the lead and the arsenic were found in the patient's urine. I entertain some doubt as to exactly when the changes in the nails first appeared, but apparently the first definite eruption was that on the thighs, beginning about the middle of October, 1932. The mother consulted a dermatologist for the so-called diaper rash; following several local applications the generalized eruption developed. In view of the history as first given us, we considered the following conditions as

diagnostic possibilities: exfoliating dermatitis, dermatitis superimposed on ichthyosis, congenital ichthyosiform erythroderma and acrodynia. The findings and clinical course have substantiated the diagnosis of exfoliating dermatitis. The patient has improved greatly following the administration of sodium thiosulphate and the removal of the tonsils.

DR. OSCAR LEVIN: I saw and treated this patient in the latter part of September or the early part of October, 1932. The parents stated that the boy had an eruption which was slightly itchy for several weeks. He was a playful, intelligent child and in excellent general health. The scalp, however, was scaly, and there were marked keratosis of the palms and areas of pronounced hyperkeratosis of the epidermis on the plantar surfaces of the feet. The skin was dry generally, and there were elevated, punctate, follicular papules and scales scattered over the trunk and the extremities. The condition suggested ichthyosis. A 2 per cent sulphur ointment was prescribed for the scalp, and a lotion for the rest of the skin.

Several days later erythematous patches extending from the scalp down the face were evident. The palms and soles were entirely covered with thick scaly lesions. There were increased inflammation and an increase in the number of papules on the general cutaneous surface. Within a week the inflammatory reaction was even more marked, the scaliness of the scalp was most pronounced and intense, the face was beginning to look red, the upper extremities showed psoriasiform patches, and there was a generalized eruption of inflammatory, scaly, follicular papules that produced a nutmeg grater-like sensation when the hand was passed over the skin. The picture suggested pityriasis rubra pilaris. A 2 per cent coal tar ointment was prescribed for the skin, and a 2 per cent salicylic acid ointment for the palms and soles.

About four or five weeks ago the family physician telephoned me and asked whether I would see the child again, but the parents did not consult me. At no time did the boy receive treatment which might have caused an irritation of the skin.

I was much surprised to see the change in the child's condition. He displayed a characteristic erythroderma with alopecia, such as that occasionally observed in patients suffering from arsenic poisoning. When I first saw the boy, the history was taken for a consideration of the possible ingestion of arsenic, but this was denied by the mother. I believe that the child will recover, and that the alopecia is not permanent.

DR. EUGENE F. TRAUB: We felt that the previous applications had nothing to do with the patient's present condition. The chances are that even the first eruption was an early manifestation of the coming arsenical rash.

A CASE FOR DIAGNOSIS (DERMATITIS VENENATA?). Presented by DR. HERMAN GOODMAN.

Three weeks ago a woman, aged 25, born in the United States, noticed three pimples on the right forearm which caused itching. She used an enema and swallowed two Ex-Lax tablets. Despite these procedures, more pimples appeared on the forearm. Two days later, she noticed that lesions had appeared on the breast; in the two weeks since then lesions have appeared over the torso. The patient used sodium bicarbonate in her bath on one occasion. She also used sulphur ointment. The eruption has become more marked.

At the time of the first examination at the Stuyvesant Square Hospital, on Feb. 2 and 7, 1933, the patient presented an eruption which extended from a line drawn across the axillae down the front, back and sides of the trunk to the groin, the iliac crests and across the buttocks and eruptive elements in the axillae along the inner sides of the arms and forearms and in the palms. The lesions on the trunk and arms consisted of somewhat violaceous papules the tops of which could readily be removed on pressure. The papules were all about the same size and round. They appeared to be scaling. When decapitated, they left a moist flesh-red spot. The eruption over the body was monotonous. The lesions on the

palms were deep-seated vesicles. Rupture with a dry needle resulted in the effusion of a drop of viscid clear serum. There were no lesions on the feet, between the toes or on the nails.

The patient said that she had not worn any patent material, corset, girdle or similar article of clothing which could have been an external cause of dermatitis, although the sharp line of demarcation at the upper part of the body suggested such an etiologic factor.

A lesion was removed for section. No report has been received.

DISCUSSION

DR. ADOLPH ROSTENBERG: Some of the lesions are clinically those of lichen planus. After a short inspection, I think that we were dealing with lichen planus on which dermatitis venenata due to treatment is superimposed.

DR. ISIDORE ROSEN: I should suggest the diagnosis of pityriasis rosea possibly associated with secondary dermatitis. The interesting feature in this case is the involvement of the tongue, on the dorsal surface of which there are a number of denuded areas. I have seen this manifestation in one or two cases of pityriasis rosea.

DR. PAUL GROSS: The absolute symmetry of the eruption would seem to me a point against dermatitis venenata. The combination of lesions on the tongue would speak in favor of toxic erythema or an unusual manifestation of pityriasis rosea.

GUMMA. Presented by DR. GEORGE C. ANDREWS.

This patient was previously presented before the Section on Dec. 6, 1932.

DISCUSSION

DR. PAUL GROSS: The patient has received ten injections of neoarsphenamine and twenty injections of bismuth and potassium iodide since he was last presented. The tumor has disappeared. The necrotic center of the ulceration is sloughing off, and healthy granulation tissue is filling in. Although we have not reached the definite conclusion that the lesion is a gumma or is due to syphilis, the response to treatment certainly suggests such a possibility. The difficulty lies in the fact that the patient's syphilis, judging from the history, is congenital.

DR. ISIDORE ROSEN: I am pleased to hear of the improvement in this large, hard, infiltrating mass which undoubtedly was a gumma of the muscle. I suggested that diagnosis when the case was previously presented.

DR. PAUL GROSS: I do not question the occurrence of gumma in congenital syphilis, but I thought that the patient was too old for manifestations of syphilis congenitalis tarda.

PEMPHIGUS. Presented by DR. A. BENSON CANNON.

A man, aged 37, was admitted to the City Hospital on March 6, 1929, with generalized pemphigus. He was discharged on May 8, free from lesions; he had gained 35 pounds (15.9 Kg.) and felt well.

On admission to the hospital, the patient said that the lesions had first appeared on the gums, like raw meat, and then on the soft palate. The lesions were followed in a few days by hard red pimple-like sores in the axillae. About three weeks later blebs appeared on the back, gradually involving most of the cutaneous surface. Within two months marked vegetative growths had developed in the axillae and groins. During this time he had been in two different hospitals. He felt weak and was suffering from the open painful lesions. He was able to eat only liquid foods.

Examination revealed a generalized bullous eruption covering the greater part of the cutaneous surface, many of the blebs being on skin otherwise apparently

normal. Many of the areas were raw and exuded blood-tinged serum. Marked vegetative lesions were present in the axillae and groins. The mucous membranes of the mouth, gums and conjunctivae were raw and bleeding, apparently from ruptured bullae. The patient was unable to turn in bed without assistance, and he appeared to be in great distress. Nikolsky's sign was present. The Wassermann reaction of the blood was negative; the blood chemistry was normal, and the results of urinalysis were normal.

Treatment consisted in alkalis in the form of sodium thiosulphate given intravenously and by mouth, sodium salicylate, sodium citrate and sodium bicarbonate. Forced fluids and a nourishing liquid diet high in calories were given. Local treatment of all the cutaneous lesions consisted in baths of potassium permanganate and the application of an ointment containing phenol and sulphonated bitumen, N. F.

The response to treatment was rapid; the lesion began to clear, and the patient gained weight. After four weeks he was given eight small weekly injections of arsphenamine. He was discharged from the hospital free from lesions.

Six weeks later the patient appeared with a recurrence of a few bullous lesions in the roof of the mouth, on the side of the nose and on the chin. Those on the side of the nose became crusted and verrucous. He was given alkalis, followed by ten injections of arsphenamine. The improvement was marked. When last seen, he had only a few small crusted lesions in the nasolabial folds.

Phenolphthalein was given orally and intracutaneously without effect.

DISCUSSION

DR. BOLESLAW LAPOWSKI: A report from Dr. George M. MacKee states that a mycologic examination was performed but failed to reveal fungi. The Wassermann test was negative. A search for Vincent's organisms in the mouth was unsuccessful. A biopsy was made, and the histologic picture was that of dermatitis vegetans. There was no histologic evidence of pemphigus. Dr. MacKee could not recall whether an eruption due to a drug had been ruled out. He saw the patient only once and could not establish a diagnosis.

NEW ENGLAND DERMATOLOGICAL SOCIETY

WILLIAM P. BOARDMAN, M.D., *Secretary*

Regular Quarterly Meeting, Feb. 8, 1933

ARTHUR M. GREENWOOD, M.D., *Presiding*

PARAPSORIASIS (?): CONGENITAL SYPHILIS (?) Presented by DR. J. H. SWARTZ, Boston.

A boy, aged 9 years, American-born of Italian parentage, had an eruption of seven weeks' duration on the trunk, extremities, face and neck. It appeared first on the chest and then spread rapidly over the body. There was slight itching. There were no constitutional symptoms and no history of the ingestion of drugs. When first seen at the department for cutaneous diseases of the Massachusetts General Hospital three weeks after the onset, the patient showed a maculopapular eruption on the trunk, extremities, face and neck. The lesions varied in size from 1 mm. to 1 cm., and from yellow to reddish brown. The patient also showed Hutchinson teeth and mulberry molars.

Dark-field examination of the serum from curetted lesions gave negative results. The reactions to two Hinton and Wassermann tests were negative.

With ultraviolet irradiation of repeated erythema doses there was gradual subsidence of the rash.

DISCUSSION

DR. C. M. SMITH, Boston: I think that the molars could be accepted as the mulberry type. The upper central incisors, although they have a perfectly good notch, are not quite the type that Dr. Hutchinson described. They are not peg-shaped. The cutaneous condition has merely occurred by chance in a person with these dental defects; I do not believe that it is in any way connected with congenital syphilis. As the patient is one of a large family, it would be extremely interesting to check the Wassermann reactions of some of the children that immediately preceded and followed him.

DR. C. J. WHITE, Boston: I do not see any need of connecting the teeth with the eruption on the skin. The child has old scars which are compatible with chickenpox or with the tuberculids. We should not call the condition parapsoriasis when there is such a deep scar.

DR. SWARTZ: There were no vesicular lesions, and the pathologic examination would rule out tuberculids.

DR. E. W. KARCHER, Lynn, Mass.: I came to the conclusion a number of years ago that mulberry molars were not necessarily due to syphilis, since I had found at least three patients of families in which there were no other occurrences of congenital syphilis or evidence of this disease. In this case the lack of lateral beveling proves that the condition is not due to syphilis, but to developmental changes caused by a transient deficiency in calcium in the first or second year of life.

DR. WILLIAM P. BOARDMAN, Boston: In this connection I should like to speak of a nurse at the City Hospital who showed typical mulberry molars and typical central upper incisors. There was no family history of syphilis, and there was nothing in the blood or physical examination to substantiate the diagnosis of congenital syphilis. I found that the patient had measles and whooping cough at the age of 2 months. I wonder whether or not the changes in the teeth in congenital syphilis are developmental rather than truly syphilitic processes; I think that this case showed rather conclusively that this is possible. I had no opportunity to examine other members of the family.

DR. JOSEPH MULLER, Worcester, Mass.: I should like to suggest a diagnosis of pityriasis rosea. The lesions are rapidly disappearing under treatment with the ultraviolet rays.

DR. ARTHUR M. GREENWOOD, Boston: Is it agreed that disturbances in the developmental processes, such as rickets, can cause the symptoms in the teeth that syphilis does?

DR. E. W. KARCHER, Lynn, Mass.: In the work of Karnash, rickets was found to be a negligible factor in cases of mulberry molars. It is very rarely that the two are associated. In the mulberry molar, the bulk of the occlusal surface is laid down in the first year, and it is not completed until fairly late in the second year. I see no reason why other disturbances of nutrition occurring at that time and of an intensity equal to those of active syphilis cannot bring about the same changes. I do not think that I have ever seen typical Hutchinson teeth in patients other than those with congenital syphilis. In this patient's teeth there is no lateral beveling. A girl presented at this meeting had several gummas on the leg. The upper central incisors showed lateral beveling and were widely spaced. I think that the condition of her teeth was without doubt due to syphilis.

DR. C. M. SMITH: I have always believed that the defect in the upper central incisors was of uterine origin.

DR. E. W. KARCHER, Lynn, Mass.: Karnash, in his study of syphilitic hypoplasia of the teeth, found on analysis of the enamel layers that the hypoplastic defects were most severe in the earliest deposits of the enamel and dentine corresponding to the first year and less severe in the second year. In the 6 year molars he found that calcification of the enamel began about one month before birth and was limited to three or four isolated caps or spiculae which were clumped together

but not united by calcified layers. These are gradually separated and determine the caliber of the crown as the infant's jaw grows in size. In mulberry molars the prenatal caps of enamel showed little or no structural deficiencies, while the lamellae representing the first year's calcification showed deeply stained enamel hypoplasia with the greatest intensity at the birth line and gradually lessening toward the second year layers. This sharp contrast between the deposits made before birth and those made immediately afterward seemed to indicate that the tooth-forming organs were not seriously impaired in utero.

DR. C. M. SMITH: Then he would have them all nutritional and not developmental?

DR. E. W. KARCHER, Lynn, Mass.: No; there are both developmental and nutritional changes occurring in the first and second years.

DR. C. M. SMITH: I had supposed that the underlying reason for the cutting edge of the upper central incisors was that it developed from two points instead of three.

DR. E. W. KARCHER, Lynn. Mass.: That is true, but the development does not take place until after the child is born.

DR. A. W. CHEEVER, Boston: I think that Dr. Smith will remember a case of typical Hutchinson teeth and mulberry molars seen at the Massachusetts General Hospital. The mother had a rash when the patient was just old enough for these interesting teeth to erupt. When he was brought to the hospital, it was thought that he might have accidental primary syphilis. There was no history that the mother had a previous infection, so that the rash could not have been a reinfection in her case.

DR. J. H. SWARTZ, Boston: How can one explain the lesions in the mouth in this case? I think that they are due to parapsoriasis.

OCULAR PEMPHIGUS. Presented by DR. E. LAWRENCE OLIVER, Boston.

A white man, aged 21, an American, was admitted to the Eye Clinic of the Massachusetts General Hospital on Sept. 12, 1932, complaining of irritation of both eyes. He gave a history of having been to the Portland Eye and Ear Infirmary in July for a Vincent infection of the throat, but he stated that at that time there was some inflammation in his eyes for which he received drops. He felt that for the past few weeks the irritation of his eyes had increased, and on everting the lids himself he noticed that there were peculiar reddish lesions. On the day of admission, the right eye showed slight congestion of both fornices, and there was a marked constriction of the lower fornix with extensive scarring, especially of the upper tarsal conjunctiva. There were three tabs of granulation tissue protruding from crater-like depressions. In the upper fornix of the left eye, there were three deeply punched-out, crater-like depressions, with several similar depressions in the lower lid. There were a constriction of the lower fornix and scarring with definite formation of symblepharon in both eyes. The patient was admitted to the Eye and Ear Infirmary, and three tabs of granulation tissue were removed from the upper lid of the left eye and four from the upper lid of the right eye. This tissue was examined bacteriologically and histologically, and inoculations into animals were made. The sections showed chronic granulation tissue with an inflammatory reaction and an infiltration of eosinophils, suggesting the picture of pemphigus. The inoculations into animals and cultural studies gave negative results. A specimen of blood was sent to Dr. Pels of Johns Hopkins Medical School. He reported a positive test for pemphigus.

The patient received the Davis treatment, liver and a diet high in vitamins, with excellent results.

DISCUSSION

DR. H. P. TOWLE, Boston: Is there such a condition as pemphigus of the eye? If there is and it never appears on the body, is it true pemphigus? As I read

over the data in this case, I feel that there was an inclination to make the diagnosis on the report of the microscopic examination; the report says that there was marked infiltration of eosinophils in the granular tissue. There is no mention of vesication, which I consider the essential symptom of pemphigus. The report further states that the toxic reaction confirmed the diagnosis. If one assumes that no condition other than pemphigus is toxic, Dr. Pel's report confirms that diagnosis. Has he not found that other conditions are toxic? I think that without the confirmation of the clinical examination, the report is nothing more than suggestive. So far as I can see, we are relying on a single presumption.

Dr. E. Lawrence Oliver, Boston: I think that the lesions on the eyes in this case certainly could be accounted for by pemphigus, and I am inclined to think that lesions in the skin may develop later.

Dr. C. J. White, Boston: Has any one seen pemphigus develop in the eyes even in a marked case of pemphigus of the skin?

Dr. Joseph Muller, Worcester, Mass.: I saw a case just recently.

Dr. Arthur M. Greenwood, Boston: I observed a case for ten years. The patient had definite pemphigus of the eye which was followed by ectropion. The pemphigus developed nowhere else. We have two patients with pemphigus in the ward at present. We have seen an unusual number of cases recently. I do not believe that the ward has been free from a case for a year or two.

Lichen Planus with Vesicles. Presented by Dr. E. Lawrence Oliver, Boston.

A white American girl, aged 19, from the outpatient department for cutaneous diseases of the Massachusetts General Hospital, gave a history of a diffuse rash on the trunk and extremities, with some predilection for the flexor surfaces, intermittently for eight weeks. The present eruption appeared gradually within a period of two weeks, causing marked pruritus from the beginning. In several places on the back the papules formed large patches. Except in the case of individual and rare lesions, adherent yellowish scales were present. About the wrists and the dorsa of the hands, the lesions had a violaceous color, and their flat glistening tops and polygonal shape were apparent. Some of the lesions on the arms were vesicular.

The patient was treated with mercuric salicylarsenate intramuscularly, which lessened the pruritus.

DISCUSSION

Dr. E. Lawrence Oliver, Boston: The vesicles did not show today, but they showed quite plainly the other day.

Dr. M. J. Strauss, New Haven, Conn.: I recently saw three cases of vesicular lichen planus. With the exception of these three cases and the case presented, I have collected only eighty-four from the literature since 1891. I should like to know whether the injections of mercuric salicylarsenate were started before the vesicles appeared. There is always a question as to whether or not the vesicles are the result of treatment with arsenic. Several patients recovered after the continued use of this drug. I noticed a few very minute vesicles on the wrists. In several cases in the literature there were excoriations, and the lesions typical of lichen planus appeared afterward in the sites. I should be interested to know whether this has occurred in the present case.

Dr. J. H. Blaisdell, Boston: I should at present be unwilling to make a diagnosis of either psoriasis or lichen planus with vesicles. The entire duration of the disease is eight weeks. I consider that the following history obtained from the girl is an important factor in the diagnosis. The eruption started with a rather suggestive rash. The patient went to a local physician, who made a diagnosis of scabies. He gave her a preparation which she used; she massaged it into the

skin for two weeks, with one week of rest between. I think that that alone may have produced a great deal of the dermatitis which she showed today.

GUMMA OF THE FINGER (?). Presented by DR. E. LAWRENCE OLIVER, Boston.

An Arabian, aged 64, a paper hanger, stated that five months previously he had struck the knuckle of the third finger of the right hand on the metal portion of his truss. One month prior to presentation he noticed a small lump on the extensor surface of the same finger. The lump grew, the finger gradually became swollen and tender, and two ulcers developed after poultices were applied. The patient had a strongly positive Wassermann reaction in 1926.

At the time of presentation the third finger of the right hand showed massive edema, especially in the region of the proximal interphalangeal joint. It was dusky red and was slightly tender. Two ulcers were present on the dorsum of the finger. Roentgenograms of the chest showed an echinococcus cyst of the lung (of forty years' duration). A roentgenogram of the finger showed nothing abnormal.

DISCUSSION

DR. E. LAWRENCE OLIVER, Boston: I thought that the condition was probably a gumma, in spite of the roentgen findings. It seems to be analogous to the gummas that are common about the knees. It is unusual to see gummas about the fingers. This is one of the first I have seen for some time.

ERYTHEMA MULTIFORME (?); DERMATITIS FACTITIA (?); ACQUIRED EPIDERMOLYSIS BULLOSA (?). Presented by DR. MYER M. TOLMAN, Chelsea, Mass.

A white man, aged 25, an Italian laborer, from the department for cutaneous diseases of the Massachusetts General Hospital, for the past two and a half years prior to presentation had a recurrent eruption on the dorsal surfaces of the hands and fingers, the flexor surfaces of the wrists and the extensor surfaces of the elbows. Patches of skin peeled off the hands and forearms, usually while the patient was at work. This happened repeatedly during the two and a half years before presentation. The lesions always improved remarkably when the patient stayed away from work. He believed that trauma initiated them. Vesicles were seen from time to time on the patient's hands. For the most part, however, he presented only oozing and crusted lesions which might have been ruptured bullae. At the time of presentation he showed pigmentation at the site of the old lesions and one fairly new lesion on the left thumb.

The Hinton reaction was negative in August, 1932. Roentgenograms of the teeth revealed nothing abnormal. Biopsy showed no diagnostic abnormality.

The patient was treated with calcium gluconate by mouth and calcium chloride intravenously. He received wet boric dressings locally, boric acid ointment and carbolic and zinc oxide lotion. The lesions disappeared, but new ones continued to develop.

DISCUSSION

DR. E. LAWRENCE OLIVER, Boston: I considered the condition epidermolysis bullosa, as the history indicated that possibility. The patient said that the lesions appeared wherever he got a knock or a blow, but I hesitate to make the diagnosis of acquired epidermolysis bullosa. Dermatitis factitia was also considered, but I do not think that that is probable.

DR. ARTHUR M. GREENWOOD, Boston: Could the condition be a rash due to phenolphthalein?

DR. J. H. BLAISDELL, Boston: I should like to suggest a diagnosis of dermatitis repens. The lesion on the left thumb was vesicular at the start; an undermining of the skin and a more or less gradual lifting of the integument followed. The patient has had the condition for nine months; this fact would, I think, rule out erythema multiforme.

PARAPSORIASIS; PITYRIASIS ROSEA (?). Presented by DR. E. W. KARCHER, Lynn, Mass.

A colored school-girl, aged 16, had an eruption that began in August, 1932. It appeared first on the lower extremities, and then on the upper extremities, the body and the neck. There was neither itching nor a history of the taking of drugs.

At the time of presentation the patient showed many smooth, slightly scaly, depigmented macules on the neck, arms and legs. There were also some flattened papules on the arms and the body, and many maculopapules on the lower extremities, with scaling from the periphery toward the center.

The Wassermann reaction was negative on two occasions.

DISCUSSION

DR. E. W. KARCHER, Lynn, Mass.: I observed a few papules which made me think that the condition might be lichen planus.

DR. J. H. SWARTZ, Boston: I thought that I saw lesions suggestive of lichen planus; some were flat angular papules near the breast. The patient said that they did not itch; I wondered whether they usually itched in colored people.

DR. A. W. CHEEVER, Boston: I saw this woman three weeks before presentation. The picture then was entirely different. On the lower part of the arms and from the waist down there were lesions that had what must be called scales as thick as four or five sheets of paper; they could be picked off. They were much darker than the normal skin, but when they came off they left areas lighter than the normal skin. These scales have practically all disappeared.

DR. C. J. WHITE, Boston: Were any scrapings made from the lesions?

DR. E. W. KARCHER, Lynn, Mass.: No scrapings have been made. It would be interesting to make some.

ERYTHEMA INDURATUM; DIABETES MELLITUS. Presented by DR. MYER M. TOLMAN, Chelsea, Mass.

A white American woman, aged 22, from the department for cutaneous diseases of the Massachusetts General Hospital, gave the following history: In September, 1931, an ulcer appeared on the right leg, followed by seven others in February, 1932, in the same location. They persisted until presentation. In September, 1932, two erythematous patches appeared on the left leg, but they never ulcerated. There was a family history of tuberculosis, although on physical and roentgen examination of the patient no evidence of tuberculosis was found.

The ulcers had irregular shapes and were deeply excavated, with some granulation on the floor of the ulcer; the borders were definitely undermined. The nonulcerated lesions on the left leg were characterized by an irregular, circumscribed, dusky blue area.

The blood was normal. Urinalysis revealed sugar. The blood sugar varied from 128 to 356 mg. per hundred cubic centimeters. The Wassermann reaction was negative.

Local treatments with ointments and ultraviolet rays and other treatment for diabetes were being given.

DISCUSSION

DR. W. P. BOARDMAN, Boston: The lesions are circinate. I cannot help thinking of syphilis.

DR. ARTHUR M. GREENWOOD, Boston: The patient's blood is normal. The ulcers are not characteristic of ordinary diabetic ulcers.

DR. E. LAWRENCE OLIVER, Boston: The patient has enlargement of the glands of the neck of long standing. Her feet are cold; the circulation is poor. There is a history of deep nodules which ulcerated.

DR. RUDOLPH JACOBY, JR., Boston: Is there not a question as to the value of insulin in a case like this?

DR. MYER M. TOLMAN, Boston: The patient is receiving almost 30 units of insulin daily. It is rather difficult to control the sugar and the diabetes because of the ulcer.

KAPOSI'S SARCOMA (?). Presented by DR. EDWARD W. KARCHER, Lynn, Mass.

An Italian laborer, aged 62, was admitted to the department for cutaneous diseases of the Newton Hospital on Dec. 15, 1932. He was well until December 3, when he experienced a twitch in his right wrist while moving a heavy stone. Following this, the wrist became swollen, and he felt a cord under the skin on the anterior surface of the forearm; by the next day this cord had extended to the elbow. The lesion was treated with applications of hot water, which gave some relief. Black, pinpoint-sized spots were noted on the forearm; these increased in size in the following days and contained blood or a yellowish fluid. The swelling and pain increased, and the cord extended to the axilla, terminating in a large tender lump. For four weeks he had a cough in the morning, with white, blood-streaked sputum. The patient recalled that about one year previous to presentation he had noticed a lump on the dorsum of his wrist, which was nonpainful and nontender, and which did not inhibit motion. He gave no history of contact with animals, leather, sheepskin or wool. He had lost about 15 pounds (6.8 Kg.) in the last two years. The history was otherwise not important.

Physical examination gave negative results except for two small, firm nodules on the abdomen, one in the right costal margin and one in the epigastric region. The right hand and forearm were swollen, firm and indurated and were covered with a number of black papules which had crusts and rings of erythema around them. There were also a number of red papules which varied in size from 1 to 3 mm. There was a firm cord just under the skin which extended from the wrist to the axilla on the anterior surface of the entire arm. There were nodules in the axilla which were firm and tender, freely movable and nonadherent to the skin. The same type of nodules was present in the cubital space. The entire forearm from the wrist to the cubital space was tender to palpation. The other extremities were normal. The temperature, pulse rate and respirations were normal, except for a gradual rise in temperature to 100.5 F. in the afternoon during the last three weeks. There were no digestive or urinary symptoms. The urine was practically normal. The blood showed moderate anemia, with a white cell count on entry of 6,600 and later of 9,200. No tubercle bacilli were found in the sputum, and no occult blood in the stool. The nonprotein nitrogen was 36 mg.; the blood sugar, 97 mg. The sputum showed a few fungus-like, branched organisms. Roentgenograms of the chest showed no abnormalities; those of the right forearm revealed no pathologic condition of the bone.

The patient received iodides; a local wash of a compound solution of iodine, and an ammoniated mercurial ointment, but local applications caused only irritation.

On January 4 and 31, biopsy reports stated that the outstanding change was histiocytic proliferation, numerous cells being in mitotic division. No giant cells were seen; only a few vessels were found, but these showed a fairly typical perivascular, cellular infiltration. The diagnosis from both the specimens was granuloma consistent with sporotrichosis. A specimen was sent to Dr. Fred D. Weidman of the University of Pennsylvania, who considered the condition a malignant neoplasm, probably a large spindle cell sarcoma, although the rapidity of the growth, the age of the patient and the metastasis by lymph rather than by blood were against the diagnosis. However, the histologic appearance was so definite that he considered that the diagnosis could stand. He also called attention to cells such as are seen in the reticulo-endothelium, but he did not know what they signified in the skin. Dr. Lee McCarthy, of Washington, D. C., stated that he thought that the section showed Kaposi's hemorrhagic sarcoma.

Culture of the sputum showed a growth of yeast, probably nonpathogenic and of no importance, possibly Sporothrix.

The condition of the hand and arm had become progressively worse, although the glands in the axilla had decreased in size. A few new lesions had appeared on the right anterior wall of the chest.

DISCUSSION

DR. C. J. WHITE, Boston: The few cases of Kaposi's sarcoma that I have seen have been generalized. This condition seems to be localized.

DR. ARTHUR M. GREENWOOD, Boston: We had a case in which the condition was confined to one leg. There was a great deal of discussion among the pathologists in regard to this case. One stated that he could not see any tumor at all, and one thought that the condition was Kaposi's sarcoma.

DR. F. P. MCCARTHY, Boston: I think that the diagnosis of Kaposi's sarcoma is one of the most difficult to make. A recent article in the ARCHIVES on the various stages of development and the microscopic picture at certain stages confirms this. When I saw the patient I thought he had Kaposi's sarcoma clinically, because of the color; the tumor was rather soft and rather conglomerated and expanded gradually. Microscopically, I think that it is a definite sarcomatous neoplasm, with quite a few mitotic figures. This is one of the many cases in which it is desirable to have the clinical as well as the microscopic picture in mind. It is difficult to connect the localized malignant process in the arm with such a short history. It is a question whether or not the trauma was introduced into the case with the possibility of collecting compensation.

DR. ARTHUR M. GREENWOOD, Boston: How would you feel about radiation in this case?

DR. C. G. LANE, Boston: I should be inclined to treat the patient vigorously with filtered, high voltage roentgen therapy. Some of the results in cases of Kaposi's sarcoma have been very good. In the usual type, the prognosis is very good.

NOTE: This patient died shortly afterward. An autopsy revealed a rapidly extending Kaposi's sarcoma.

DETROIT DERMATOLOGICAL SOCIETY

H. J. PARKHURST, M.D., *Reporter*

Regular Meeting, Feb. 10, 1933

EMMETT C. TROXELL, M.D., *Presiding*

A CASE FOR DIAGNOSIS. Presented by DR. GEORGE VAN RHEE.

A man, aged 42, born in Poland, a dry cleaner, stated that he had a penile lesion at the age of 21. He presented an eruption of fifteen months' duration, consisting of small crusted nodules on the back, chest, groin and thighs, some solitary and others in serpiginous groups. There was slight scarring. The Wassermann reaction was negative.

DISCUSSION

DR. ARTHUR E. SCHILLER: The arrangement of the lesions suggests syphilis, but apparently some of them are vesicular. As a spotter in a dry cleaning plant, he handles irritants, which may cause the lesions, or they may be bullous erythema multiforme.

DR. GEORGE VAN RHEE: Vesicles and pustules have developed lately.

DR. HOWARD J. PARKHURST: The type and distribution of the lesions, the pruritus and the pigmentation favor a diagnosis of dermatitis herpetiformis.

DR. CYRIL K. VALADE: Pemphigus foliaceus would seem to be another possibility.

DR. JOHN A. HOOKEY: I feel that this is probably a case of dermatitis herpetiformis.

DR. ROBERT C. JAMIESON: In some areas vesicles had dried, leaving circinate groups of crusted lesions. The grouping and pigmentation favor a diagnosis of dermatitis herpetiformis.

SECONDARY SYPHILID RECURRING UNDER TREATMENT. Presented by DR. THOMAS H. MILLER.

A man, aged 27, had had a penile lesion seven weeks prior to Aug. 22, 1932, when he first came under observation. There had been no history of previous penile lesions or of urethral discharge. In August there were several papules on the glans penis, one of which, on the corona, was eroded and deeply indurated. There had also been a faint macular eruption on the chest and shotty papules on the palms and soles. No lesions had been found on the visible mucosae. All of the superficial lymph nodes had been enlarged, and the Kahn reaction had been strongly positive.

Treatment with neoarsphenamine had been instituted; 0.3, 0.45 and 0.6 Gm. were given during the first week, these injections being followed by seven weekly injections of 0.6 Gm. The drug used for this first course was a product which had been submitted for clinical trial. With the fifth injection, bismuth salicylate was also given, intramuscularly, and continued at weekly intervals up to fifteen injections. The eruption on the chest had disappeared one week after treatment had started, and all of the lesions had vanished within a month.

On December 2, six weeks after the last injection of neoarsphenamine, the patient presented a papulosquamous eruption on the trunk and upper arms which was diagnosed as pityriasis rosea, and which faded partially after exposure to ultraviolet rays. After about three weeks it became more papular and rapidly extended to the forearms, forehead and scalp. One week later there was a patchy alopecia of the scalp. A second course of injections of neoarsphenamine was started on December 9, and was continued up to the time of the presentation. The eruption had subsided about 80 per cent, and the Kahn reaction was negative.

DISCUSSION

DR. THOMAS H. MILLER: A different brand of neoarsphenamine was used for the second course. The exfoliation was largely due to the ultraviolet exposures.

DR. ARTHUR E. SCHILLER: May this eruption not be arsenical dermatitis or pityriasis rosea?

DR. LOREN W. SHAFFER: On the whole, we must accept this case as a recurrent secondary syphilid, with chancre redux and typical alopecia. Large clinics do see recurrences under active treatment, and the patient is now doing surprisingly well. Lately I saw a similar case in which an eruption resembling pityriasis rosea developed under treatment, and it is now clearing up with arsenical treatment.

DR. CLAUD W. BEHN: Recently a recurrent secondary syphilid, with mucous patches and a chancre redux developed in one of my patients, who had received twelve injections of neoarsphenamine, followed by a six weeks' course of bismuth. The condition proved to be the fulminating type of syphilis, and rupial lesions appeared. Is it possible that treatment with neoarsphenamine alone, followed by bismuth, may produce this condition?

DR. RAY S. DIXON: We frequently see such recurrences during treatment.

DR. ROBERT C. JAMIESON: This case presents a good object lesson, showing the fallibility of neoarsphenamine when it is used without mercury or bismuth. If this treatment is supplemented with mercury or bismuth from the start, such a

recurrence would possibly have been avoided. At least, I have never observed a recurrence under such combined treatment.

DR. LOREN W. SHAFFER: In early syphilis and in early latent syphilis the pendulum is swinging toward the use of a continuous rather than an intermittent treatment, which is carried out for a period lasting some time after all clinical and serologic signs have become negative.

TUBERCULOSIS CUTIS. Presented by DR. ROBERT C. JAMIESON.

A man, aged 46, employed in a factory, stated that his first wife had died of tuberculosis. Aside from cutaneous manifestations, he presented no sign of the disease. His past history was otherwise irrelevant. Cutaneous lesions had developed seven years previously at the mucocutaneous border of the right side of the lower lip, later involving the chin and the entire nose. There were also two lesions on the neck. All were reddened, scaling, deep-seated, involuting lesions, which in some areas had produced atrophy and destruction. The borders had formerly been much more elevated; they showed small yellowish bodies under the diascope. The progress of the condition had been slow over a five year period. Two years previous to presentation there had been great improvement after gold therapy combined with ultraviolet irradiation had been resorted to. Six weeks before the time of the presentation ulceration and heavy crusting had occurred. The Wassermann reaction was negative. There had been no biopsy.

DISCUSSION

DR. ROBERT C. JAMIESON: It is interesting to note that the patient's first wife died of tuberculosis, and that his first lesion appeared on the lip, extending to the nose.

DR. LOREN W. SHAFFER: How intensive was the ultraviolet treatment?

DR. ROBERT C. JAMIESON: Just enough ultraviolet rays from a water cooled quartz mercury vapor arc lamp to produce an erythema, and general ultraviolet exposure at the same time.

A CASE FOR DIAGNOSIS. Presented by DR. ROLLIN H. STEVENS.

A married woman, aged 62, had been treated for a squamous cell carcinoma of the right labium majus, and was clinically cured, the treatment having been concluded in October, 1932. For two years whitish lesions had been appearing on her neck, shoulders and arms, without subjective symptoms. For the last two months they had presented a noticeable scale. There had been no inflammatory reaction. These lesions had developed simultaneously with the malignant condition mentioned above. The Wassermann reaction was negative.

DISCUSSION

DR. HOWARD J. PARKHURST: The ivory color and plugging are suggestive of lichen planus sclerosus et atrophicus.

DR. GEORGE VAN RHEE: I had considered that the condition might possibly be a late stage of Schweninger-Buzzi's disease.

FOLLICULITIS DECALVANS. Presented by DR. CYRIL K. VALADE.

A man, aged 26, a medical student, was in good general health. Since the age of 17 he had noticed an eruption in the scalp which started at about the vertex and slowly extended anteriorly and posteriorly. There was a palm-sized area of atrophy and permanent alopecia, with a few follicular pustules, in various stages, about the borders, especially on the occiput. There had been periods of remission lasting two or three months, at various times.

DISCUSSION

DR. ROBERT C. JAMIESON: The present condition resembles an old healed favus, but apparently it is folliculitis decalvans.

DR. LOREN W. SHAFFER: These cases always bring up the points of differential diagnosis between pseudopelade, folliculitis decalvans and lupus erythematosus. This seems to be a case of folliculitis decalvans. Cases of perifolliculitis capitis abscedens et suffodiens, such as my recent case and Dr. R. E. Barney's, have shown retained hairs in the abscesses.

DR. HOWARD J. PARKHURST: So far as I am aware, cases of folliculitis decalvans, such as this under discussion, do not become cases of perifolliculitis capitis abscedens et suffodiens. The two conditions appear to be distinct entities.

PITTSBURGH DERMATOLOGICAL SOCIETY

FREDERICK AMSHEL, M.D., *Secretary*

Regular Meeting, Feb. 16, 1933

CLAUDE B. NORRIS, M.D., *President*

TULAREMIA. Presented by DR. LESTER HOLLANDER.

T. S., a colored youth, aged 16, presents a lump in the right axilla which is indurated around the borders and is nodular and fluctuating in several areas. The condition began in the middle of December with fever and constitutional symptoms. The patient worked with rabbits in the early part of December but does not remember having any cuts at that time.

An agglutination test carried out by the United States Public Health Service was positive for Bacterium tularense in a dilution of 1:1,280. Treatment will consist of desensitization.

DISCUSSION

DR. W. H. GUY: With the agglutination as reported the diagnosis cannot be questioned. The case is unusual because of the absence of any evidence of the primary lesion. Can the presenter cite any literature indicating the value of vaccine treatment?

DR. L. HOLLANDER: Vaccine treatment is still in the experimental stages. Favorable results have been obtained with an initial dose of 100,000,000,000.

VACCINIA. Presented by DR. FREDERICK AMSHEL.

G. A., a girl, aged 4 years, has an eruption on the right cheek. The condition began eight days ago as a small vesicle, which gradually became larger, with surrounding erythema. The right eye became involved. An older sister, 5 years of age, had been vaccinated on the left arm sixteen days previously. After about ten days the arm around the area of vaccination became swollen and painful and was involved to the elbow. The two children played together frequently, so that the vaccination on the younger patient's face must be of traumatic origin and secondary to that of the older child.

DISCUSSION

DR. E. GILLESPIE: Since the cheek is a primary vaccination site, there may be considerable scarring. I had a patient with a secondary vaccination on the chin, transferred from the arm, which produced no scarring.

MIKULICZ' DISEASE. Presented by DR. L. HOLLANDER and DR. A. FISHER.

H. C., a colored man, aged 29, single, presents bilateral swelling of the lacrimal, parotid, submental and sublingual glands of about a year's duration. The process has been progressive and painless. It does not trouble the patient except mechanically. This condition was first described by Mikulicz in 1888. Sections showed a condition resembling tuberculosis. The patient is receiving roentgen therapy.

DISCUSSION

DR. L. HOLLANDER: The symmetrical adenopathy involves all the lacrimal and salivary glands above the clavicle. The pathologic picture is that of miliary tuberculosis. Inoculation of a guinea-pig was carried out five weeks ago. We have no report on it. The blood showed nothing of importance.

LUPUS ERYTHEMATOSUS; RADIODERMATITIS; SQUAMOUS CELL CARCINOMA. Presented by DR. L. G. BEINHAUR.

Mrs. H. S., aged 48, came for consultation because of an eruption on the face and a lesion on the nose. She states that the lesion on the nose is of six weeks' duration and has grown rapidly. The lesions on the forehead, nose, chin and cheeks have been present for from ten to twelve years. Eight years ago radium was applied to the lesions with no benefit. Three years ago generalized and localized ultraviolet therapy followed by local ionization (applications of iodine) was given with no relief. No treatment has been used within the past three years with the exception of a soothing ointment.

Examination revealed an eruption on the forehead, nose, cheeks, neck, ears and lips, consisting of dry, red, atrophic, adherent, scaly, single and confluent lesions with scarring, dilatation and follicular patency. Especially about the angles of the mouth, chin and cheeks, there was a mottled, deep pigmentation with telangiectatic disfigurement and dry, crinkly skin. There was a definite ectropion of the left lower eyelid with conjunctival irritation. On pressure no typical apple jelly nodules were discernible within the areas of scar tissue, where new lesions were forming. The scalp presented numerous atrophic, alopecic scars varying from the size of a pea to that of a finger-nail. The tip of the nose presented an easily movable and sharply defined, dime-sized, rounded, hyperkeratotic lesion, with a rolled-out pearly border, about 1.5 cm. above the skin; it apparently occurred over an area of previous application of radium. No treatment except electrocoagulation of the malignant lesion on the nose has been employed; treatment with a gold preparation will be given.

DISCUSSION

DR. L. G. BEINHAUR: The lesions within the areas of scar tissue are typical of lupus erythematosus rather than of lupus vulgaris. The scar tissue probably is the result of a previous application of radium. The recent lesions behind the ears are typical of lupus erythematosus.

PUSTULAR PSORIASIS (ACRODERMATITE CONTINUÉ OF HALLOPEAU). Presented by DR. LESTER HOLLANDER and DR. J. HECHT.

S. G., a man, aged 35, presents typically psoriatic patches on the elbows and knees, but there is a suppurative condition on the hands and at the finger-tips. On the left hand four nails are involved, all except that of the index finger. The suppurative process began at the nail fold and lifted the nail forward. The rest of the hand shows exfoliation. The condition is extremely painful.

On the right hand also four nails are involved, that of the index finger again being unaffected.

There are patches of psoriasis on the thighs, over the knees, on the soles and on the scalp. Serologic and hematologic examination and urinalysis gave negative results. There is marked oral sepsis.

DISCUSSION

DR. W. H. GUY: The only question of interest is whether the eruption on the hands could properly be classed as pustular psoriasis or as severe psoriasis with fissuring and secondary pyogenic infection.

DR. B. A. GOLDMANN: The condition has developed within the past four months. The psoriasis began with lesions on the elbows and knees, without involvement of the hands.

DR. L. G. BEINHAUR: The diagnosis of psoriasis cannot be questioned. The tongue presents a unique feature in the clinical signs. Is the condition of the tongue typical of pustular psoriasis?

DR. L. HOLLANDER: This is the third case of this type that I have shown. In each instance the patient was much below par, as in this case. The tongue is swollen and reddened, with fine central atrophy, and is scrotal (lingua plicata). I believe that the condition is psoriasis of the tongue.

BRONX DERMATOLOGICAL SOCIETY

THEODORE ROSENTHAL, M.D., *Secretary*

Regular Meeting, Feb. 16, 1933

ADOLPH ROSTENBERG, M.D., *President, in the Chair*

KERATOSIS PALMARIS ET PLANTARIS. Presented by DR. ARTHUR SAYER.

T. M., a girl aged 13, who was born in the United States of Italian parents, presented herself at the Morrisania City Hospital because of an unusual condition of the skin of the palms and soles. The patient's mother stated that she had noticed the condition for the past five years. The mother said that there was no consanguinity in her own family or in her husband's family and that she was not related to her husband. Both the father and the mother are free from the condition. The patient has two brothers who present no abnormalities of the skin of the palms or the soles.

The palms are involved more than the soles. The skin of the entire surface of the palms and soles and of the areas extending to the fingers and toes on the dorsal regions is thickened, smooth and reddish. There are no subjective symptoms except when the area involved becomes fissured.

DISCUSSION

DR. I. M. LASHINSKY: The eruption extends to the dorsal aspect of the hands and therefore is not characteristic of keratosis palmaris et plantaris. Psoriasis should be considered.

DR. CHARLES WOLF: I do not believe that the condition is keratosis palmaris et plantaris. Only a slight keratosis is evident. The palms are rather smooth and red.

DR. SAMUEL FELDMAN: The keratosis of the palms is certainly not marked. The skin of the palms looks much like that of the back part of the fingers, and the lesion extends considerably to the sides. The condition suggests pityriasis rubra pilaris. The body seems to be free from eruption, which is not uncommon in the early stages of this disease.

DR. HENRY SILVER: The mere fact that the process extends to the dorsal aspect of the hands does not warrant a diagnosis of psoriasis. On the other hand, there is only slight keratosis of the palms and soles, yet keratoderma palmare et plantare hereditarium must be considered.

DR. DAVID BLOOM: I agree with the diagnosis as presented.

DR. ARTHUR SAYER: The picture is identical with that shown in Stellwagon's textbook. In many cases the lesions appear on the sides of the hands and extend toward the dorsal surface, and in some cases there is only slight keratosis.

ATYPICAL PSORIASIS (?). Presented by DR. PAUL GROSS.

Mrs. M. B., a white woman, aged 39, presents an eruption on both soles of several months' duration. The lesions consist of sharply circumscribed areas covered with hyperkeratotic scales; the border is distinctly erythematous and is somewhat infiltrated and fissured. The patient complains of pain and itching.

The Wassermann test of the blood was negative.

DISCUSSION

DR. CHARLES WOLF: I agree with the diagnosis of atypical psoriasis. Microscopic examination of a section would probably confirm the diagnosis of psoriasis.

LATE SYPHILID SIMULATING DERMATOPHYTOSIS. Presented by DR. GEORGE SPINNER.

Mrs. T. W., a white woman, aged 40, weighs about 180 pounds (about 81.6 Kg.) and is in good health. She was married at the age of 15 and had a child at 16. When she was 18 laparotomy was performed for ovarian trouble. Her son is 24 years old and is well. There have been no further pregnancies.

Careful questioning revealed a negative history in regard to primary and secondary lesions. About two months ago blisters appeared on the palm of the right hand. Not much pain accompanied them. They opened and discharged serous pus. Some healed spontaneously.

Examination showed several pustular lesions about the size of a pea, which were grouped almost in a circle about the palm and at the bases of the index, middle and ring fingers; they were situated on an erythematous base. The lesions were in different states of involution: Some contained pus; others were covered with crusts, and still others were healing, leaving a reddish area. There was comparatively little pain in the entire area. The eruption simulated closely dermatophytosis, especially as the lesions were located also between the bases of the fingers.

The Wassermann reaction of the blood was four plus.

TUBERCULID OR LICHEN NITIDUS (?). Presented by DR. DAVID BLOOM.

R. J., a Negro, 34 years of age, presents an eruption on the trunk, neck and both sides of the frenulum of the penis of ten years' duration. It consists of papules the size of a pinhead or larger, many of which are raised slightly above the skin. Several show a slight central umbilication. The color of the papules is somewhat lighter than that of the skin.

In both lumbar regions the lesions are grouped, forming on each side a patch the size of a palm; many of them show a central umbilication or plug.

The eruption is nonitching. The patient stated that he had penile lesions several years ago. A Wassermann test of the blood made one year ago gave a strongly positive reaction, but a recent test gave doubtful results. There was a positive reaction to a 1:150,000 solution of old tuberculin. Biopsy was performed, the results of which have not yet been reported.

DISCUSSION

DR. PAUL GROSS: It is extremely difficult to make a positive diagnosis on clinical grounds alone. However, because of the character of the lesions on the penis and the location of some of them, I am inclined to the diagnosis of lichen nitidus.

DR. CHARLES WOLF: I am of the opinion that not all the lesions are of the same type. For instance, the lesions on the neck are elevated and pigmented and suggest dermatitis papulosa nigra.

DR. V. A. CORNELL: I believe that the most plausible diagnosis is that of lichen nitidus.

DR. DAVID BLOOM: I think that the elevated, pigmented lesions to which Dr. Wolf referred are of the same type as the others. I was under the impression that the lesions, especially those not raised above the skin, resembled lichen nitidus, but I was unable to make a positive diagnosis. The report of the histologic examination will undoubtedly clear the diagnosis.

ACRODERMATITIS CHRONICA ATROPHICANS. Presented by DR. PAUL GROSS.

A white man, aged 75, presents a bluish discoloration extending from above the knee to the dorsa of the feet. In the upper part the skin has the appearance of thin cigaret paper and is slightly scaly; the subcutaneous veins shine through. The lower half of the legs shows a scleroderma-like thickening and a small ulcer on the inner aspect of the right ankle. The dorsa of the hands show a bluish discoloration and atrophy extending in a band over the extensor surface of the forearms above the elbows. Near the olecranon the skin appears thickened, and there are several fibrous palpable nodules the size of a pea. There is an atrophic patch on the right side of the forehead.

DISCUSSION

DR. F. E. CROSS: I believe that the condition is a combination of acrodermatitis chronica atrophicans and scleroderma.

DR. I. M. LASHINSKY: The patient has two or three nodules in the atrophic area. In a similar case presented by Dr. Feldman (Acrodermititis Chronica Atrophicans with Xanthoma-Like Nodules, ARCH. DERMAT. & SYPH. **26**:1162, 1932) the nodules were found on histologic examination to be xanthomatous. I suggest that a pathologic study of these nodules be made.

DR. PAUL GROSS: The patch on the forehead is not due to senile changes, but is a part of the process. The term *acra* is applied not only to the extremities, but also to the chin, nose and forehead. The sclerodermatous thickening and the fibrotic nodules are late manifestations accompanying acrodermatitis chronica atrophicans. With respect to treatment, the best relief, particularly when there is pain, is offered by diathermy. I have also tried roentgen treatment on the lumbar region. The results were gratifying. This type of treatment is necessarily symptomatic and is used also for scleroderma.

DR. ADOLPH ROSTENBERG: I agree with Dr. Gross' remarks on diathermy. In cases of scleroderma the results obtained are remarkable. Although scleroderma and acrodermatitis chronica atrophicans are clinical entities, there may be a common etiologic factor. In my experience glandular treatment, particularly with thyroid extracts, has proved beneficial in such atrophic conditions.

DR. LOUIS CHARGIN: I do not see what can be expected with any type of therapy in an advanced case of atrophy. An attempt might be made to control an early stage, but with the type of changes presented by this case such an attempt would be futile.

DR. HENRY SILVER: The occurrence of fibrotic nodules in late stages of acrodermatitis chronica atrophicans is not uncommon. Oppenheim calls them *Ausgänge* of the atrophic process.

Because of the good results obtained with pancreatic extracts in scleroderma, a series of patients are being subjected to this treatment. It is too early to evaluate the results.

LYMPHOGRANULOMA INGUINALE. Presented by DR. THEODORE ROSENTHAL.

R. N., a man, aged 34, born in Russia, had a chancre in 1930, which was treated with intravenous injections. The present illness began about fifteen days before admission to the hospital, when the patient noticed a small sore on the penis, which disappeared in about two days. Soon afterward a swelling developed in the right groin. The patient felt well during the day but was feverish at night and sweated profusely. The mass in the groin was slightly painful.

On examination, no evidence of a penile lesion was found. The right inguinal region was occupied by a tense, fluctuating mass the size of a pigeon's egg, which yielded thick yellow pus on aspiration. The pus was sterile.

The Wassermann and Kahn tests of the blood gave negative results. Pirquet's test and the dmelcos (Ducrey's bacillus antigen) test gave negative results. The Frei test gave positive results with both an autogenous antigen and a known positive antigen. A diagnosis of lymphogranuloma inguinale seemed justified.

DISCUSSION

DR. DAVID BLOOM: Lymphogranuloma inguinale is found more often than heretofore. I have seen a number of cases within a short period. During the last month there have been eight or ten cases in Bellevue Hospital; all in the reactions to the Frei test were positive.

DR. PAUL GROSS: I have been interested in discovering patients with this condition for many years. Five or six years ago I presented a case before the Section of Dermatology and Syphilis of the New York Academy of Medicine which attracted much attention. The incidence of the disease varies in this country as in Europe. It showed an increase after the World War, which accounts for the present voluminous literature. More cases are seen at present because the disease is more prevalent.

DR. F. E. CROSS: I agree with both speakers. I think that this disease is probably on the increase and also that one is better able to diagnose such cases nowadays. Previously the condition was frequently diagnosed as buboes, chancre and peculiar types of infections.

DR. HENRY SILVER: One is more familiar with such cases now than formerly because one is looking for them and because in suggestive cases the Frei test is performed. Better clinical diagnosis is partly responsible. This is the second case to be presented before this society, both being shown by Dr. Rosenthal. A few years ago when a case was presented the diagnosis was accepted. Now, however, doubt is often expressed as to the diagnosis when the latter is based on positive reaction to the Frei test, because the specificity of the test has been questioned. Those who follow the literature know that there is quite a controversy in regard to this subject. In the hands of Nicholas and Favre and their co-workers the Frei test has not proved to be 100 per cent specific; nevertheless, it is the best diagnostic aid available at present.

DR. THEODORE ROSENTHAL: In regard to the Frei test, 90 per cent of all cases of lymphogranuloma inguinale show positive reactions. The patient presented last year was treated successfully with injections of protein. Another method is to give the Frei antigen intradermally.

NEVUS SEBACEUS. Presented by DR. HENRY SILVER.

S. L., a white woman, 32 years old, who was born in Poland, gives a vague history in connection with the first appearance of the diseased condition of the skin of the right cheek. She is certain of one thing: that the affected area has persisted since earliest childhood. Whether a trauma or a burn preceded the onset, or whether the skin changed spontaneously, she cannot state. At various times she has been under the care of dermatologists, who have treated her with ointments to produce peeling or with carbon dioxide snow, with little effect. She also presents a marked hypertrichosis of the chin, for which she is being treated.

On the right cheek, extending from the lateral canthus of the eye to a line parallel to the right corner of the mouth, there is an elevated area the size of a palm. The upper border is streaked. The color is that of normal skin, with a decided yellowish tint in the center. The consistency of the entire lesion is soft; the surface is smooth. The follicles are markedly dilated; comedones are visible in some of them. The patient refused to have a biopsy specimen taken.

DISCUSSION

DR. PAUL GROSS: The condition is nevus comedonicus. I presented a similar case in which, however, there were distinct scars. I should diagnose the condition as a nevus of the connective tissue associated with nevus comedonicus. It is not unusual to find the two combined.

DR. CHARLES WOLF: The condition may be nevus lipomatosus. I think that the tissue is lipomatous rather than connective. The particular type of tissue can be determined only by biopsy.

DR. HENRY SILVER: Few cases of this type are seen. The clinical picture is that of nevus sebaceus.

PHILADELPHIA DERMATOLOGICAL SOCIETY

R. L. GILMAN, M.D., *Secretary*

Feb. 17, 1933

F. D. WEIDMAN, M.D., *President*

PROBABLE PULMONARY TUBERCULOSIS AND LUPUS ERYTHEMATOSUS. Presented by DR. PATRICIA DRANT.

E. F., a girl, aged 17, entered the Philadelphia General Hospital on Aug. 12, 1932, with a history of pimples on the backs of the hands which broke out in 1928 and lasted a week. These were followed by flat, red areas about the size of a pea, at first discrete but later tending to become confluent, on the forearms as far as the shoulders. They lasted almost a year, and itched considerably. Several small patches have remained. At the same time red spots appeared on the cheeks, gradually growing larger and bridging the nose. The patient was hospitalized on two previous occasions. In 1932 the condition broke out with renewed fury. On admission to the hospital the entire lower portion of the face, part of the forehead, the forearms, the backs of the hands and the right arm were involved.

Physical examination revealed nasal polyps, enlarged tonsils and dental caries. Tonsillectomy was performed, and the teeth were repaired. Gold sodium thiosulphate was given intravenously. There was considerable improvement.

Late in January, 1933, the patient had a slight elevation of temperature to 100 F., which has persisted. On one occasion she coughed up blood-tinged sputum. Daily tests of the sputum have been made; one was reported as positive, and several succeeding tests were negative. Roentgenograms revealed dense hilar shadows, increased density of the shadows of the lower part of the trunk and irregular mottling extending outward from the right hilar shadow. The apexes, diaphragm and heart are normal.

DISCUSSION

DR. F. D. WEIDMAN: Biopsy did not show the histologic features of tuberculosis. The lesion selected for microscopic examination evidently was regressing, for there was not much evidence of activity in the form of infiltration with round cells. Furthermore, there was a great deal of local degeneration of the collagen,

as though there had been activity at one time. The picture was not representative of lupus erythematosus, but at the same time it was not that of true tuberculosis.

I am loath to accept lupus erythematosus as the diagnosis of this patient's condition. She has been on my service for three months. I have always thought that I could see a yellowish line at the margin, yet there are no definite nodules in the periphery suggesting the lupus erythematoides of Leloir. It was this that made me ask for a biopsy, although the patient has lesions on the shell of the ear that show marked atrophy.

Dr. John H. Stokes: I think that the condition is lupus vulgaris erythematoides. I should strongly oppose the diagnosis of lupus erythematosus. The patch on the left arm is infiltrated. I think that more specimens should be taken.

Rosacea of the Cornea and Keratitis. Presented by Dr. J. V. Klauder.

A woman, aged 30, presents rosacea of the cornea with keratitis.

DISCUSSION

Dr. F. D. Weidman: The surprising thing to me is that the pupils are permanently dilated, although the patient has not had drops for three weeks. I understand that she received long-continued treatment with atrophine, and that permanent dilatation of the pupils is a sequela one should attempt to forestall. It appears that the lesions of the cornea are not erythematous, like those of facial rosacea. This is easy to understand in view of the avascularity of the cornea. Were studies of the results of internal medication made?

Dr. John H. Stokes: There is a well recognized rosacea keratitis, but ophthalmologists do not recognize its connection with rosacea. It is responsive to the modern treatment for rosacea. In a recent series of cases which Beerman and I published, the conditions in five responded to treatment.

Dr. J. V. Klauder: I think that it is unusual for the condition to occur in a person of this age.

Dr. John H. Stokes: I have seen two such cases, one in a student at the University of Syracuse; most of the patients, however, are older.

Dr. S. S. Greenbaum: The curious fact is that ophthalmologists cannot obtain satisfactory results because they fail to recognize that the condition is systemic in many patients, and they therefore do not treat the patient for the rosacea. Unless the rosacea is cleared up, the condition of the eye remains.

Dr. F. D. Weidman: In juvenile cases such as this it would be useful to know the history of the internal medications, in order to compare them with those of adults.

Dr. J. V. Klauder: I see many cases of acne rosacea of the cornea at the clinic of the Wills Eye Hospital. It seems to me that we get the best results with intramuscular injections of sterile milk. The treatment is, of course, effective in cases of corneal ulcer of other causation.

Dr. F. D. Weidman: Do you apply other standard treatments for rosacea in addition to the injections of sterile milk?

Dr. J. V. Klauder: Yes.

Dermatitis Herpetiformis. Presented by Dr. J. V. Klauder.

A boy, aged 7 years, when first seen about a year ago presented bullae of two years' duration which involved the lower part of the abdomen and the upper inner surfaces of the thighs. He also showed the remains of former lesions. He is presented because of the unusual location of the lesions and because no new lesions have appeared since thyroid medication was begun. Arsenic has not been prescribed, because he had liberal treatment with that drug prior to the administration of thyroid medication.

DISCUSSION

DR. R. L. GILMAN: We presented this boy before the society six months ago as showing recurrent pyogenic dermatitis (or hydroa). Dr. Stokes was inclined to think that the condition was pyogenic dermatitis. The chronicity suggests Duhring's disease, but the location is unusual. At present only pigmented macules with attendant scarring are seen.

DR. F. D. WEIDMAN: When I saw the boy on admission to my service, I thought that the condition might be chickenpox. The subsequent course disposed of that idea.

DR. JOHN H. STOKES: The condition was much more extensive and more inflammatory than chickenpox.

DR. F. D. WEIDMAN: In order to come to a decision, it was necessary to have this continued perspective of the course. If I were seeing the patient for the first time tonight, I should consider dermatophytosis, but the patient's history forces us to hesitate to give a final diagnosis.

DR. JOHN LANE, New Haven, Conn.: The change that most interested me was the large amount of lichenification, which is not usual in Duhring's disease.

DERMATITIS EXFOLIATIVA. Presented by DR. J. V. KLAUDER.

D. R., a man, aged 39, presents dermatitis exfoliativa of about one year's duration. It began as an eczema at first localized on the arm. All the laboratory studies showed essentially normal conditions. The patient was treated by three other dermatologists before we saw him. He is presented because of favorable results following the use of a diet similar to Gerson's diet. While this diet was being administered, a period of six weeks, the improvement was about 50 per cent. Many once moist areas are now dry and scaly, and at places the skin is normal.

DISCUSSION

DR. R. L. GILMAN: How strict a diet was used?

DR. J. V. KLAUDER: The diet was strictly salt-free, with a preponderance of vegetables and fruit, including raw vegetables, raw fruit and uncooked milk. The foods not allowed in the Gerson diet were not eaten. The foods allowed were not given in weighed amounts, as is prescribed in the Gerson diet.

DR. S. S. GREENBAUM: I saw this man a year and a half ago, and he then had perhaps ten or twelve patches of eczema on the skin. It seems to me that the condition is erythroderma secondary to eczema rather than primary dermatitis exfoliativa.

DR. D. M. PILLSBURY: A possible explanation of the mechanism of the effect of the diet can be found in a recent paper by Herrmann (*Ztschr. f. d. ges. exper. Med.* **76**:780, 1931) in which it is shown that a salt-free diet has a remarkable effect on the water balance of the skin, as it influences the free water content.

MULTIPLE TELANGIECTASES (MACULAR) ASSOCIATED WITH SYPHILIS. Presented by DR. H. BEERMAN.

H. B., an obese white man, aged 41, on admission to the Hospital of the University of Pennsylvania, presented no gross physical abnormalities except acute urethritis and a dermatosis which consisted of numerous clusters of finely branching telangiectases scattered widely over all of the extremities. Some of the lesions seemed to extend radially from a small, slightly atrophic center suggestive of nevus araneus. The mucosae were free. The patient has noted these lesions from early childhood, but recently the already existing lesions have begun to enlarge and new lesions have formed. He has frequent nosebleeds. No other member of his family is similarly affected. He also gives a history of having had a chancre in 1911.

The serologic tests were strongly positive. The electrocardiogram was negative. An orthodiagram showed the heart transversely placed and normal in size, with a moderately dilated aorta. No biopsy specimen was taken.

DISCUSSION

DR. F. D. WEIDMAN: Was there syphilitic infiltration in the foci histologically?

DR. H. BEERMAN: We are not certain, since we have as yet taken no biopsy specimen.

DR. JOHN H. STOKES: Syphilis does not necessarily have anything to do with the case. The first case I saw, in a patient on Dr. Wile's service, I reported as associated with syphilis, but I have since learned that such an association is not necessary.

DR. S. S. GREENBAUM: The patient stated that he had the condition from early childhood. His eruption probably should be classified with generalized hereditary angiomatosis of Rendu-Osler-Vaquez.

DR. F. D. WEIDMAN: It appeared to me that there was associated atrophy; the normal markings on the surface of the skin were disturbed. The pathologic process was something more than mere hyperplasia and telangiectases of the blood vessels, and I am curious to know whether there were previous pathologic changes there. These changes could result in stress and pulling on the sides of the blood vessels just as in chronic cystic mastitis the fibrous tissue pulls on the walls of the milk ducts and causes cysts. I should like to ask members whether they think that macular atrophy with superadded telangiectases would harmonize with the picture in this case.

DR. S. S. GREENBAUM: This is the first case of this type that I have seen. There was a suggestion of atrophy in some of the lesions, but it was not like any macular atrophy that I have seen before.

DR. JOHN LANE: I have never seen a patient with so many lesions. The lesions are also somewhat larger than is usual.

SUBSEQUENT NOTE.—Biopsy showed central epidermal atrophy with a scant infiltration of round cells in the corium associated with the telangiectatic vessels.

REGROWTH OF HAIR FOLLOWING ADMINISTRATION OF CYSTINE IN THE FORM OF HYDROLYZED WOOL. Presented by DR. J. V. KLAUDER.

A boy, aged 16, had universal loss of hair for three years. Different treatments were employed without success. About one month after the initial administration of cystine in the form of hydrolyzed wool, there was evidence of regrowth of hair. Three months later, the eyebrows were completely restored; hair was present, but not in normal amounts, in the axillae and in the pubic region, and hair almost covered the scalp. There were, however, some patches of alopecia areata. The patient gained 8 pounds (3.6 Kg.). The patient has taken hydrolyzed wool for seven months, and except for a few patches of alopecia areata, the regrowth of hair on the scalp is almost normal.

DISCUSSION

DR. JOHN LANE: I am a heretic regarding all treatment for alopecia areata. I have never been able to convince myself that any treatment does good. Spontaneous regrowth sometimes occurs after a long time.

CUTANEOUS SENSITIZATION TO ARSENIC THROUGH THE PATCH TEST. Presented by DR. H. BEERMAN.

N. W., an American housewife, aged 28, on admission to the clinic of the Hospital of the University of Pennsylvania, in the service of Dr. John H. Stokes, on March 15, 1932, presented a primary vulvar lesion. She was given treatment

with an arsenical preparation. A patch test made on the day after the first treatment was negative. Following the tenth treatment, on May 8, papular dermatitis of the neck and legs developed, which was considered to be mild arsenical dermatitis. A patch test made on May 11 was negative, and one made on May 20, slightly positive. Another test made on May 23 within twenty-four hours showed a 2 plus reaction; there was a consequent spread of the dermatitis. However, after four weeks of treatment complete involution of the eruption occurred.

The apparent delay in the involution of the mild dermatitis was occasioned by the coincident occurrence of inguinal and crural dermatophytosis. Antisyphilitic treatment with bismuth was resumed; it was well tolerated. On November 16 another patch test was performed. On the night of that day the test sites became pruritic, and there was slightly generalized pruritus. The test in twenty-four hours was strongly positive. On the right wrist, where accidental contact with the patch test on the left arm occurred, there was a bullous reaction. On Feb. 15, 1933, another patch test was made. Nine hours later the patient presented a marked erythema of the neck, thighs (with accentuation in the crura) and upper extremities. In addition there were marked edema of the left arm and a flare-up at the site of the patch tests performed on Nov. 16, 1932, as well as at the site of the contamination of the right wrist. The patch was immediately removed, but in fifteen hours the patient noted elevation of all the lesions. Within twenty-four hours the eruption was practically gone. The reaction to the patch test was 4 plus, and there were 9 per cent eosinophils in the blood.

The patient is presented mainly to call attention to the possible danger of performing routine patch tests, and to trace the gradual development of a patch test gradient from a complete negative to a violent positive, both local and widespread, with a flare-up of former positive sites of patch tests both near and distant from the site being tested. This case also suggests the possibility of sensitization to arsenic through patch tests by the absorption of small amounts of arsenic through the skin, as suggested by Schoch (*Am. J. Syph.* **14**:75, 1930).

In order to test the possibility of the absorption of arsenic through the unbroken skin, an analysis of fluid obtained from the blisters resulting from positive patch tests of this patient and of two other patients has been made; positive qualitative tests for arsenic were obtained. Repetitions with various controls are being performed.

DISCUSSION

DR. JOHN LANE: These tests were not performed on the same part of the skin, were they?

DR. H. BEERMAN: They were performed on the same arm, but at different sites. In order to detect the presence of arsenic in the skin we are in the process of producing blisters with cantharides plaster at a site far distant from any of the patch tests, and we are testing the serum from these blisters for arsenic.

SUBSEQUENT NOTE.—Carefully collected serum from blisters resulting from patch tests and that from control blisters caused by cantharides plaster were negative for arsenic.

DR. B. L. KAHN: This patient shows hypersensitivity to chemicals such as is seen so often in conditions caused by poison ivy. At first the reaction occurs only when the patient touches the plant, but after several seasons he contracts the condition by merely being near the plant.

DR. F. D. WEIDMAN: Would nonspecific substances such as formaldehyde or alcohol have the same effect? That is, is the reaction specific, or is it dependent more on a state of hyperergy in the patient?

DR. JOHN H. STOKES: This case is presented because we have had occasion to suspect that in the routine testing of the patient for sensitization to arsenical drugs she may have become sensitized through the test itself. In our series we attempted to avoid inducing exfoliative dermatitis by testing each person who was to receive an arsenical preparation to see whether he was sensitive to arsenic before he

started taking it, and we obtained such a high incidence of exfoliative dermatitis that we suspected that we had induced more than an ordinary sensitivity to the drug.

The case is shown for another reason as well. We have for a long time suspected that exfoliative dermatitis occurs with particular ease in subjects susceptible to and carrying a focus of dermatophytosis. We suspected that they were sensitized as a patient with asthma, for instance, is sensitized by a focus in the sinus of infection. I think that it is possible that dermatophytic infections of the groin are at the base of the high susceptibility of some persons to exfoliative dermatitis. The evidence is purely that of clinical association, but we are collecting it for consideration.

Cathcart and I, in reviewing a series of cases, succeeded in showing that focal and intercurrent infections predispose persons to exfoliative dermatitis through a sensitizing effect. I know one patient who had exfoliative dermatitis four times: Once exfoliative dermatitis developed following exposure to feathers; twice it started in the localization of an inguinal dermatophytosis, and once it followed an injection of Coley's serum. Such a situation tends to show that the allergic response is not so specific to drugs as we supposed, but that a variety of influences can be contributory. I think that the explanation of some of the so-called pityriasis rosea-like eruptions due to bismuth is the same, i. e., a flare-up in possibly a mycotic infection induced by the action of the drug.

A Case for Diagnosis. Presented by Dr. Patricia Drant.

A white saleswoman, an American, aged 31, presents an eruption confined to the cheeks and chin, and spreading beneath the chin. It is a dry, scaly, erythematous condition with many points of telangiectasis. There are a few minute, dry, vesicular lesions, pitting and minute areas of atrophy, especially on the chin. A few superficial comedones are present on the cheeks adjacent to the nose. The eruption began three years previously as rough, reddish, scaly spots on the cheeks. It has grown worse in the last six months.

DISCUSSION

Dr. R. L. Gilman: Regardless of the fact that the history does not mention roentgen therapy I believe that the patient is suffering from the belated effects of the roentgen rays.

Dr. P. Drant: The patient says that she has had no treatment with the roentgen rays, or any other treatment.

Dr. F. D. Weidman: The eruption has a remarkably symmetrical distribution for one due to the roentgen rays. Dr. Drant states that the condition is advancing under the chin. I saw a number of pittings in the ears. I think that the condition is lupus erythematosus of a very superficial variety.

Dr. John Lane: I am uncertain of the diagnosis. The condition is probably lupus erythematosus, but the typical keratotic plugs are absent.

Dr. John H. Stokes: I should suggest the possibility of an infection caused by Demodex, as reported by Ayer and Anderson. I recall a case of Dr. Pusey's, in a man who had a patch on the right cheek, from which we isolated fungi repeatedly and which cleared up under ordinary treatment for mycosis, and a case in Rochester, in a youth, aged 19, whose cheeks showed a condition even more like that in this case, which presented fungi. That the patient is an adult should not warrant us to exclude the search for fungi. Cosmetics should be rigidly avoided.

Dr. S. S. Greenbaum: I think that the condition is lupus erythematosus.

Dr. E. F. Corson: I favor the idea of dermatitis due to cosmetics.

Subsequent Note.—Since the meeting, reports have been received that potash preparations and cultures were negative for fungus. The work was carried out in Dr. Weidman's laboratory.

KERATOSIS PALMARIS ET PLANTARIS WITH CONTRACTURES. Presented by DR. R. L. GILMAN.

S. C., aged 37, born in Poland, an orderly from St. Joseph's Hospital, presents a bilateral and symmetrical inflammatory keratoderma of both palms and soles associated with palmar contractures. There is evidence of hyperhidrosis. The nails are unaffected. The pulse rate is 72. There are no laboratory reports.

The mentality of the patient is subnormal. The history was difficult to obtain. The palms and soles have always been affected with recurrent inflammation and tenderness. From time to time there have been small ulcers on the right palm. The patient received operative treatment for the condition of the left palm and sole only. He believes that he had roentgen treatment at the Pennsylvania Hospital years ago. He gives no history of taking arsenic. The greater part of his treatment has been limited to local applications.

This case appears to conform to Besnier's type of "symmetrical keratoderma developing in childhood, of an erythematous and irritable character probably combined with some neurosis."

DISCUSSION

DR. JOHN H. STOKES: There are two items of the patient's history that do not appear on the card. At the site of the linear contracture an operation was performed for what may have been a Dupuytren contracture. At the site of the contracture on the hypothenar eminence of the other hand he received an injection, or a series of injections, of some substance. I should like to know what substance was injected.

DR. JOHN LANE: This is an extremely interesting case. I have never seen a contracture of this sort in a case of keratosis palmaris. I should like to know whether the patient also had Dupuytren's contracture for which an operation was performed.

DR. R. L. GILMAN: The patient told me that he was in the Philadelphia General Hospital some time ago with a neurologic disorder, in the service of Dr. George Wilson. I believe that the contractures he presents occurred prior to the operation on the left hand.

DR. JOHN LANE: It is difficult to understand how the dermatosis could be the cause of the contracture. There is contracture of the palmar fascia.

DR. A. STRAUSS: The patient has had this condition for fifteen or twenty years. I remember that he was presented long ago by Dr. Stellwagon, when the latter was at the Philadelphia General Hospital. The patient was then in the neurologic wards.

TELANGIECTASES ASSOCIATED WITH CHRONIC CARDIAC DISEASE. Presented by DR. F. D. WEIDMAN.

J. L., aged 53, from the service of Dr. W. E. Robertson, is suffering from a chronic cardiac disease in connection with which telangiectases have developed over the thorax anteriorly and posteriorly as well as on the upper parts of the arms. The lesions are of the brilliant red variety familiar to dermatologists as the hemangiomas of Dubreuilh, varying in size from that of a pinhead to two or three times as large. They are commonly regarded as one of the many expressions of the senile skin; and it has always been felt that they are permanent. The patient's skin is not of the senile type because it lacks the pigmentary moles, acrochordons, senile keratoses and similar characteristics. The only evidences of senility are gray hair and an arcus senilis. Dr. Robertson has observed that the lesions come and go, and that they are associated with decompensative stages of chronic cardiac disease. He believes that they are a duller red than those of true senility. By marking a lesion with mercurochrome, he was able to identify it and to follow its course until it completely regressed.

I examined the biopsy material; there were no thromboses. The lesions consist of dilated capillaries arranged in clusters suggestive of glomeruli, although not

so compactly as in the kidneys. It is not difficult to understand that there were preexistent abnormal glomeruli or capillary tufts which ordinarily are invisible; under circulatory stress the lumens suffer dilatation, and the tufts thus become visible.

The patient is presented to show that some but not all of the brilliant red telangiectases in senile skins are essentially senile; there is a residue which occurs in connection with chronic cardiac disease and which may have value as a diagnostic or perhaps a prognostic sign.

GRANULOMA INGUINALE. Presented by DR. F. D. WEIDMAN.

Three colored men with granuloma inguinale, from the Philadelphia General Hospital, responded well to treatment. The antimony and potassium tartrate employed in this hospital is not sterilized. The salt is added to sterile physiologic solution of sodium chloride, and the dosage is 5 cc. of a 1 per cent solution; this is increased 1 cc. with each injection until 10 cc. has been reached. The injections are given every other day.

Donovan bodies have been demonstrated in the three cases.

DISCUSSION

DR. S. S. GREENBAUM: Is there any particular treatment for elephantiasis of the penis? I wonder whether drainage would help.

DR. F. D. WEIDMAN: I think not.

DR. JOHN H. STOKES: We obtained fair results at the university with a modified Kondoleon operation for scrotal elephantiasis. The results of operation on the leg are particularly striking, and the results of operation on the scrotum are apparently satisfactory.

DR. F. D. WEIDMAN: There is a trick in staining for the Donovan body. When differentiating the Giemsa (or other Romanowsky) stain, do not let it remain too long in the water. After staining, slide it into the water and then out promptly; otherwise, the capsule becomes bleached and the Donovan body cannot be distinguished from the diplococci.

VINCENT'S INFECTION OF THE MUCOUS MEMBRANE. Presented by DR. F. D. WEIDMAN.

W. L., a youth, aged 20, had a cold in the chest three weeks ago. He was given medicine to rub on his chest, and three days later he noticed that his mouth and eyes were sore. The eyes were injected, and there was a grayish membrane over the conjunctivae. Two days later the rectum and penis became sore, and the patient noticed a grayish membrane over the glans penis.

Physical examination revealed nothing abnormal except for the cutaneous lesion. In the mouth, extending into the pharynx as far as could be visualized, there was a grayish membrane which could be wiped away with difficulty. A similar membrane was present in the conjunctival sac extending over the bulbar and palpebral conjunctivae. The conjunctivae were injected and slightly edematous. The nose was crusted, and remnants of a gray membrane were seen within. The glans penis and the region about the anus were similarly affected. The anal sphincter was relaxed. The skin of the extremities (most marked on the distal portions) presented red and slightly infiltrated maculopapular lesions, which were topped with a yellowish crust. The patient has been in the hospital four days. The lesions have improved markedly after intravenous injection of neoarsphenamine, the local application of neoarsphenamine and glycerin and the administration of zinc sulphate to the conjunctiva. Vincent's organism was found in a smear taken from the mouth, but not in smears taken from the eyes, penis, rectum or skin.

DISCUSSION

DR. JOHN H. STOKES: Whenever I see a picture like that on the glans penis I recall the case of a boy seen at Rochester with a diphtheroid infection; in this case a practically pure culture of diphtheroid organisms was obtained from the lesions around the nose, mouth and glans penis. When we observed this case, we reviewed the literature and found that Graham Little had collected four cases of diphtheroid infection of the mouth, nose and glans penis. If Vincent's organisms are not found on the penis, it should be determined whether there is an overwhelming proportion of diphtheroids. The presence of Vincent's organisms may be due to the fact that there are lesions in the mouth.

DR. JOHN LANE: Have Vincent's organisms ever been found in the eyes?

DR. S. S. GREENBAUM: I agree with Dr. Stokes. The condition does not look like Vincent's disease. You will find that the gums are not involved, and Vincent's disease always begins in the gums.

DR. F. D. WEIDMAN: May I suggest pemphigus as an alternative diagnosis?

DR. R. L. GILMAN: This case resembles two cases of pemphigus that Dr. Weidman and I showed a year ago, one in a colored woman and one in an elderly Jewish woman. Smears from the mouth, umbilicus and genitalia were positive for Vincent's organisms. The Pels test was positive. Both patients died of vegetative pemphigus. I believe that the outlook in this case is bad.

DR. JOHN LANE: The condiiton looked to me more like pemphigus than like any other disease.

PELLAGRA (?). Presented by DR. F. D. WEIDMAN.

M. D., a white man, aged 42, an Italian, has been in the psychopathic ward of the Philadelphia General Hospital for three days. A reliable history cannot be obtained. The patient is heavy and robust, with great numbers of minute, uniform, erythematous papules over the shoulders and back extending slightly into the axillae. A similar eruption is not present on other parts of the body. There is no significant grouping of the papules; they disappear readily on pressure.

A different type of eruption is present on the shins. The lesions are barely discernible, faint, slaty discolorations; those on the knees have a more bruised appearance, and there is some puffiness. While there is a possibility that the lesions are due to trauma, there is no damage to the surface of the skin on the legs to bear this out, and the distribution and depth of pigmentation are remarkably symmetrical and uniform.

The condition may be another variant of dermatitis produced by alcoholism, and the etiology of the changes on the legs approximates that of the lesions seen in scurvy. This concept of a deficiency disease is interesting in connection with the pseudopellagrous changes which are already well established as a postalcoholic effect.

DISCUSSION

DR. J. M. SCHILDKRAUT: I thought that the lesions on the back looked like miliaria. There were vesicles on some of the papules.

DR. D. M. PILLSBURY: Did the patient receive phenobarbital? The condition on the back resembles an eruption due to that drug.

DR. F. D. WEIDMAN: I thought of the possibility of trauma, but the discoloration of the shins is too uniform.

DR. JOHN H. STOKES: I thought that the patient had more than a suggestion of pseudopellagra, that is, a dermatitic flush ending sharply at the knuckles and faint dermatitis over the dorsum.

DR. J. V. KLAUDER: The eruption is not similar to the pellagra that appeared in the alcoholic patients whom I studied and whose cases I reported in an article entitled "Pellagra Among Chronic Alcoholic Addicts" (*J. A. M. A.* **90**:364 [Feb. 4] 1928). May I voice my objection to the term pseudopellagra to designate

pellagra appearing in alcoholic patients? In this instance the disease does not differ from endemic pellagra or from pellagra in nonalcoholic persons. I believe that the term pseudo is unwarranted.

MULTIPLE CHANCRES (ON THE LIPS AND THE GENITALIA). Presented by DR. F. D. WEIDMAN.

A white man, aged 23, is presented in connection with the time elapsing between the appearance of chancres on the lips and on the genitalia. According to the patient, the lesions on the genitalia developed five weeks ago, and those on the lips two weeks later. Vestiges of early secondary lesions are still present. The patient was given two intravenous injections of arsenicals (0.6 Gm. of neoarsphenamine) with considerable improvement; the first medication was given nine days ago. The lesions are hard and woody, and the submental and inguinal adenopathy can still be palpated.

DISCUSSION

DR. JOHN H. STOKES: I believe that the patient has scabies, and that the chancres on the penis and the scrotum are scabetic. Failure of the patient to observe the lesion on the lip is a common experience. I have known more conspicuous lesions on the penis to be overlooked by the patient. There were three burrows on one hand. The lesions have developed in the localization one would expect. I have seen simultaneous chancres of the finger and the penis. Why should lesions not develop simultaneously on the lip and the penis? A chancre developed on the finger of another patient because he neglected to sterilize it, but he had the penis treated prophylactically. There is no reason why a patient should not have twenty chancres. I should place no reliance on chronological differences between lesions on the lips and the genitalia such as those described by the patient.

GENERALIZED SCLERODERMA. Presented by DR. F. D. WEIDMAN.

A white man, aged 39, from the service of Dr. Klein, presents a moderate grade of sclerodactylia and barely perceptible induration of the cheeks. The pigmentation is outstanding. The patient states that he has always been light-complexioned, yet the pigmentation is deep, uniform, diffuse and almost universal. It occurs on the upper part of the chest and the lower part of the neck, and there are accentuated patches on the forearms.

At the onset three years ago there were acute pains in the joints of the fingers, but there were no constitutional symptoms to indicate that the condition was a generalized acute infection. The patient took silver nitrate one and one-half years ago for from six to eight months for a gastric ulcer. He stated that the pigmentation developed subsequent to internal medication (he is taking solution of potassium arsenite at present); however, there were no keratoses of the palms. The oral mucosa was not hyperpigmented.

The dermatosis was preceded several months by severe gastric symptoms, including vomiting of bright red blood. The patient lost 65 pounds (29.5 Kg) in two and one-half years. He stated that one and one-half years ago a gastric ulcer, together with the gallbladder and appendix, was removed. At that time he had jaundice, which subsequently disappeared.

The striate distribution of depigmentation on the forearms is probably referable to massaging and incidental scratching.

Examination of the urea, sugar, cholesterol, calcium, phosphorus and chlorides of the blood and roentgen studies of the sella turcica disclosed nothing suggestive of an endocrine disturbance. Electrocardiographic studies gave negative results. The patient presented a moderate grade of secondary anemia. The white blood cell count was 12,200. Roentgenograms of the toes showed that the ungual tuberosities as well as the bones of the hand were rarefied.

The pigmentation is out of proportion to the sclerosing process, whether it is due to (1) arsenic, (2) synergy between early medication with silver and arsenic, or (3) a visceral neoplasm, with or without involvement of the suprarenal glands.

DISCUSSION

DR. S. S. GREENBAUM: Were the mucous membranes involved?

DR. F. D. WEIDMAN: No.

DR. JOHN H. STOKES: I think that the pigementation is excessive for scleroderma; it resembles the melanoses due to arsenic and arsphenamine, which are mulatto-like in their brown-blackness. I am struck by the smoky color of the pigmentation; it may be due to the silver element in the suprarenal mechanism. Moreover, the addisonian pigmentation in this case is more marked than that in scleroderma.

PITYRIASIS LICHENOIDES CHRONICA (?). Presented by DR. PATRICIA DRANT.

S. G., aged 13, a colored schoolgirl, presents a generalized, chronic, lichenoid eruption. On the back and the sides of the neck, the dorsa of the wrists and the flexor surfaces of the elbows, the lesions are markedly infiltrated and verrucous, and show greatly increased pigmentation.

The patient was referred to the clinic for cutaneous diseases of the Woman's Hospital in August, 1931; she presented the same dermatologic picture as now. The Wassermann reaction was 3 plus. The patient has been treated with neoarsphenamine since July, 1931. On July 25, 1932, she returned to the clinic. There was no change in the cutaneous condition, but the Wassermann reaction was negative. In November, the Wassermann reaction was also negative. When the patient was 6 years old the eruption appeared on the forehead, the elbows and the upper lip; it has persisted.

DISCUSSION

DR. R. L. GILMAN: My diagnosis is pityriasis rubra pilaris.

DR. S. S. GREENBAUM: There are a great deal of itching and many papular elevations. What particularly impresses me is the perioral pigmentation. The patient has taken Ex-Lax and Phenolax for a number of years.

DR. A. STRAUSS: I thought that the condition was one of the chronic eczemas that become lichenoid with deep pigmentation. It occurs frequently in dark-skinned persons.

DR. PATRICIA DRANT: The patient has an unusual amount of pigment. The lesions are verrucous. The lesions on the wrists and on the flexor surfaces of the knees and the elbows look like those of acanthosis nigricans.

DR. JOHN LANE: I have never seen pityriasis lichenoides chronica on the wrists. I have not seen enough Negroes to say anything about it in their race. There are a good deal of thickening and lichenification on the wrists in this case, and the condition looks more like acanthosis nigricans with that distribution. It also looks to me like eczema, with a great deal of lichenification. I should not call it a case of lichen ruber pilaris.

Book Reviews

Diseases of Tradesmen. By Bernardino Ramazzini (1633-1714). Together with Biographical Notes Translated from the French of François Claude Mayer (1928) of Budapest and Paragraphs from the Preface of Dr. James (1746) of London, and of Dr. James (1922) of New York. The Abstracts from the 1746 English Translation of the Ramazzini Work Emphasize His Comments on Dermatological Disturbances of Workmen. Compiled by Herman Goodman, B.S., M.D. With Which Is Bound Silk Handlers' Disease of the Skin: Being a Study of the Clinical Aspects, and a Recital of the Search for the Cause Including Notes on the Culture of the Silkworm, the Handling of the Silk from the Cocoon to Its Preparation in the Throwing Mill for Weaving. By Herman Goodman, B.S., M.D. Cloth. Price, $1.50. Pp. 95, with illustrations. New York: Medical Lay Press, 1933.

Ramazzini is one of the most interesting figures that come within the purview of dermatology. Two hundred years ago he saw the importance of occupations in the production of disease and studied the subject thoroughly. His zeal in this work knew no bounds, and he personally investigated the details of all occupations with which he could make contact. His objective attitude and his scientific spirit make his book on this subject as modern as if it was written in this generation. His studies, of course, had to do largely with diseases of the skin, and this gives his work particular interest to dermatologists, but it also concerned itself with all diseases. And in his studies he records the most interesting facts concerning social and economic conditions and the customs of all sorts of trades and professions. This gives the book wide interest. It is one of the important social records of the middle of the seventeenth century. Ramazzini was recognized in his day as one of the greatest physicians; he was indeed one of the great men of the times, and before 1800 his book "De morbis artificium diatriba" was translated into English, German and French, and went through many editions. For some reason hard to understand, Ramazzini has been forgotten. It is a strange fate, for his book on occupational diseases is one of the landmarks in medicine. It can be read not only with interest but with profit by students of diseases of the skin. It reminds one of the modern classic by Prosser-White on the same subject.

The only edition of the work in English was a translation by James in 1746. Goodman has supplied in part the lack of a modern copy by his work, in which, in addition to giving biographical and bibliographical information about Ramazzini, he has given a selection from each chapter on the diseases of tradesmen. They are well selected, and they give an interesting insight into the original. It is perhaps too much to expect that any one should reproduce Ramazzini's book completely. Goodman has performed a useful service in presenting this large picture of its contents. It is a labor of love for which Dr. Goodman deserves the thanks of dermatologists.

Traité de dermatologie clinique et thérapeutique. Publié sous la direction de J. Belot, Paul Chevallier, J. Gate, P. Joulia, Marcel Pinard, E. Ramel, E. Schulmann, A. Touraine and R.-J. Weissenbach. Secrétaire général: E. Schulmann. Volumes I and II. Price, 225 francs each. Pp. 566, with 309 illustrations and 10 colored plates; pp. 531, with 260 illustrations and 5 colored plates. Paris: Gaston Doin & Cie, 1933.

These two volumes, with a third still to appear, constitute a treatise on dermatology which may be, in a way, regarded as a companion to the magnificent treatise on syphilis edited by Jeanselme. The arrangement and plan of the work

remind one of the treatise on syphilis. This in itself gives one a favorable impression of the volumes. Schulmann is the secretary of the organization under which each treatise has been produced. In both the collaborators include many of the best known men in French dermatology.

The work is encyclopedic and is a complete exposition of French dermatology. It is complete in that it gives a full exposition of the entire subject, but is not so overfull of detail that one does not get readily an orientation of the whole subject.

The first 310 pages are devoted to the principles of dermatology. This, to the reviewer's mind, is the most important part of the work. It alone would justify the publication of the treatise. It begins with general etiologic considerations; heredity in dermatology, the influence of the individual characteristics of the skin on diseases of the skin, acquired predispositions, cutaneous reactions, the importance of the glands of internal secretion and sensitivity. Then the body as a whole is discussed in its relation to dermatology, the morbid changes and defensive reactions being stressed. Next it takes up the geographic considerations of dermatology. Seventy-six pages are devoted to these subjects. Then in 150 pages the following subjects are considered: clinical examination of lesions, study of the normal and pathologic skin and examination of the skin by physical, chemical, bacteriologic, mechanical and electrical methods. All of these subjects are considered in the minute detail characteristic of the French, who are unsurpassed if anywhere equaled, in this art..

After 310 pages devoted to general dermatology the treatise takes up special dermatology, that is, a consideration of the various diseases of the skin, and in this the same characteristic, painstaking, scholarly methods are noted. The second volume continues with special dermatology. It ends with interesting chapters on professional dermatoses, feigned eruptions, dermatophobias and medicolegal dermatology. The various articles are by men who are entirely familiar with their subjects. These two volumes cover beautifully those parts of dermatology which they consider, and our French colleagues are to be congratulated on them.

The format of the volumes deserves a word of comment. The books are fine examples of the book-maker's art; the type is pleasing; the paper has sufficient gloss to bring out well the illustrations, but it is easy on the eyes; the illustrations are many, well chosen and of excellent quality. The many illustrations in color add greatly to the attractiveness of the work.

Handbuch der biologischen Arbeitsmethoden: Die Methoden zur Serodiagnostik der Syphilis. By Alfred Klopstock, Heidelberg. Abt. XIII. Methoden der Immunitätsforschung und der experimentellen Therapie. Price, 16 marks. Pp. 233. Berlin: Urban & Schwarzenberg, 1933.

This monograph considers with German thoroughness all the aspects of the serodiagnosis of syphilis. Its exhaustive array of facts will be of great value to specialists who need the full details of this field. In this work Klopstock has left nothing undone. He shows scholarship and a complete technical knowledge of the subject, as well as a scientific background. The book is one of the complete expositions of a limited subject which come from German scholarship and from German scholarship almost alone.

Directory of Dermatologic Societies *

FOREIGN

British Association of Dermatology and Syphilology (Canadian Branch)

Alberic Marin, President, Drummond Medical Bldg., Montreal.
Antonio Sabetta, Secretary-Treasurer, 3435 St. Denis St., Montreal.
Place: Hamilton, Ontario. Time: 1934.

Royal Society of Medicine, Section of Dermatology

A. M. H. Gray, President, 30 New Cavendish St., W. 1, London.
W. N. Goldsmith, Secretary, 6, Upper Wimpole St., W. 1, London.

NATIONAL DERMATOLOGIC SOCIETIES

American Medical Association, Scientific Assembly, Section on Dermatology and Syphilology

C. Guy Lane, Chairman, 416 Marlboro St., Boston.
Harry R. Foerster, Secretary, 208 E. Wisconsin Ave., Milwaukee.
Place: Cleveland. Time: 1934.

American Dermatological Association

Fred Wise, President, 200 W. 59th St., New York.
W. H. Guy, Secretary, 500 Penn Ave., Pittsburgh.

SECTIONAL DERMATOLOGIC SOCIETIES

Baltimore-Washington Dermatological Society

Harry M. Robinson, President, 106 E. Chase St., Baltimore.
M. H. Goodman, Secretary, 401 Medical Arts Bldg., Baltimore.

Central States Dermatological Association

Emmett C. Troxell, President, 74 W. Adams St., Detroit.
William G. Saunders, Secretary, 9203 Grand River Ave., Detroit.
Place: Pittsburgh. Time: 1933.

Iowa and Western Illinois Dermatological Association

J. C. Kessler, President, University Hospital, Iowa City, Iowa.
Robert E. Jameson, Secretary, 1014 First National Bank Bldg., Davenport, Iowa.
Place: Iowa City. Time: October 10, 1933.

New England Dermatological Society

Rudolph Jacoby, President, 416 Marlboro St., Boston.
J. Harper Blaisdell, Secretary, 5 Bay State Road, Boston.
Place: Boston. Time: April 11, 1934.

Southern Medical Association, Section on Dermatology and Syphilology

Andrew L. Glaze, Chairman, 1928 First Avenue, Birmingham, Ala.
Dudley C. Smith, Secretary, University, Va.
Place: Richmond, Va. Time: November 14-17, 1933.

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* Secretaries of dermatologic societies are requested to furnish the information necessary for the editor to make this list complete and to keep it up to date.

STATE DERMATOLOGIC SOCIETIES

Florida Society of Dermatology and Syphilology

Chairman for each meeting is elected from city in which meeting is held.
Elmo D. French, Secretary, 602 Huntington Bldg., Miami.
Place: Jacksonville. Time: July 2, 1934.

Louisiana Dermatological Society

J. A. Devron, President, 150 Baronne St., New Orleans.
M. T. Van Studdiford, Secretary-Treasurer, 912 Pere Marquette Bldg., New Orleans.

Medical Society of the State of New York, Section on Dermatology and Syphilology

George M. Fisher, Chairman, 264 Genesee St., Utica.
Frank Combes, Secretary, 80 W. 40th St., New York.

Medical Society of the State of Pennsylvania Section on Dermatology

Stanley Crawford, President, 200, 9th St., Pittsburgh.
Robert L. Gilman, Secretary, 1930 Chestnut St., Philadelphia.

Michigan State Medical Society, Section on Dermatology and Syphilology

G. H. Belote, Chairman, 201 S. Main St., Ann Arbor.
A. R. Woodburne, Secretary, Grand Rapids Clinic, Grand Rapids.
Place: Grand Rapids. Time: Sept. 12-14, 1933.

Minnesota Dermatological Society

E. Z. Shapiro, President, 14 W. Superior St., Duluth.
D. D. Turnacliff, Secretary, 407 Medical Arts Bldg., Minneapolis.
Time: First Wednesday in October, December, February and April.

Oklahoma Dermatological Association

W. A. Showman, President, 108 W. 6th St., Tulsa.
C. L. Brundage, Secretary, 505 Osler Bldg., Oklahoma City.

Texas Dermatological Society

Everett C. Fox, President, 1719 Pacific Ave., Dallas.
Everett R. Seale, Secretary, 1215 Walker Ave., Houston.
Place: Houston. Time: Fall, 1933.

LOCAL DERMATOLOGIC SOCIETIES

Atlanta Dermatological Society

Francis G. Jones, President, 384 Peachtree St., Atlanta, Ga.
Charles A. Wilkins, Secretary, Medical Arts Bldg., Atlanta, Ga.

Bronx Dermatological Society

Samuel Feldman, Chairman, 1955 Grand Concourse, New York.
Henry Silver, Secretary, 290 West End Ave., New York.

Brooklyn Dermatological Society

Louis J. Frank, President, 1367 Eastern Parkway, Brooklyn.
George F. Price, Secretary, 884 Lincoln Place, Brooklyn.
Time: Third Monday of each month except June, July, August and September.

Buffalo Dermatological Society

Joseph Brumberg, President, 528 Delaware Ave., Buffalo.
William F. Hoover, Secretary, 333 Linwood Ave., Buffalo.

Chicago Dermatological Society

Oliver S. Ormsby, President, 25 E. Washington St., Chicago.
Max Wien, Secretary, 104 S. Michigan Ave., Chicago.

CINCINNATI DERMATOLOGICAL SOCIETY

Harry L. Claassen, President, Provident Bank Bldg., Cincinnati.
Raymond G. Senour, Secretary-Treasurer, 19 W. 7th St., Cincinnati.

CLEVELAND DERMATOLOGICAL SOCIETY

S. Littman, President, 10515 Carnegie Ave., Cleveland.
H. G. Miskjian, Secretary, 856 Rose Bldg., Cleveland.

DETROIT DERMATOLOGICAL SOCIETY

Emmett C. Troxell, President, 74 W. Adams Ave., Detroit.
William G. Saunders, Secretary-Treasurer, 9203 Grand River Ave., Detroit.

LOS ANGELES DERMATOLOGICAL SOCIETY

Stanley O. Chambers, Chairman, 727 W. 7th St., Los Angeles.
Nelson P. Anderson, Secretary, 2007 Wilshire Blvd., Los Angeles.

MANHATTAN DERMATOLOGIC SOCIETY

Howard Fox, Chairman, 140 E. 54th St., New York.
Mihran B. Parounagian, Secretary, 126 E. 39th St., New York.

MONTREAL DERMATOLOGICAL SOCIETY

J. F. Burgess, President, Drummond Medical Bldg., Montreal, Canada.
B. Usher, Secretary-Treasurer, 1538 Sherbrooke St., W., Montreal, Canada.

NEW YORK ACADEMY OF MEDICINE, SECTION OF DERMATOLOGY AND SYPHILIS

Leo Spiegel, Chairman, 241 W. 100th St., New York.
Eugene F. Traub, Secretary, 140 E. 54th St., New York.

NEW YORK DERMATOLOGICAL SOCIETY

Edward R. Maloney, President, 853 7th Ave., New York.
R. H. Rulison, Secretary, 145 E. 54th St., New York.

OMAHA DERMATOLOGICAL SOCIETY

Alfred Schalek, Chairman, 721 Medical Arts Bldg., Omaha.
Donald J. Wilson, Secretary, 1216 Medical Arts Bldg., Omaha.

PHILADELPHIA DERMATOLOGICAL SOCIETY

Jacques P. Guequierre, Chairman, 1930 Chestnut St., Philadelphia.
Robert L. Gilman, Secretary, 1930 Chestnut St., Philadelphia.

PITTSBURGH DERMATOLOGICAL SOCIETY

Frederick Amshel, Chairman, 3401 5th Ave., Pittsburgh.
Bernhard Goldmann, Secretary, Jenkin's Arcade, Pittsburgh.

ST. LOUIS DERMATOLOGICAL SOCIETY

Richard S. Weiss, President, 3720 Washington Blvd., St. Louis.
M. F. Engman, Jr., Secretary-Treasurer, 3720 Washington Blvd., St. Louis.

SAN FRANCISCO DERMATOLOGICAL SOCIETY

Ernest K. Stratton, President, 490 Post St., San Francisco.
John M. Graves, Secretary, 909 Hyde St., San Francisco.